

TRANSFER & STORAGE

TRANSFER AND STORAGE OF MERCHANDISE MOVING AND STORAGE OF HOUSEHOLD GOODS
MERCHANDISE DISTRIBUTION

Vol. XVIII, No. 9

U. P. C. Building, 239 W. 39th St.
New York, N. Y.

September, 1919



The wide variety of capacities in which SELDEN TRUCKS are made provides a SELDEN TRUCK that will render the most highly efficient service in any kind of hauling work.

Cost accounts show many users of Selden Trucks in the transfer and storage business to be operating their haulage departments on a profitable basis—made possible only by the type of service rendered

by SELDEN TRUCKS—uninterrupted service at low operating cost.

SELDEN TRUCKS will solve your transportation problems. 1, 1½, 2, 3½ and 5 Ton Worm Drive Models, equipped with bodies to meet the particular requirements of the transfer and storage business. Ask the Selden dealer in your territory or write us for facts that prove the economy of the operation of SELDEN TRUCKS.

SELDEN TRUCK SALES COMPANY

Rochester, N. Y., U. S. A.

Selden Motor Trucks

Editorial Contents, Page 3

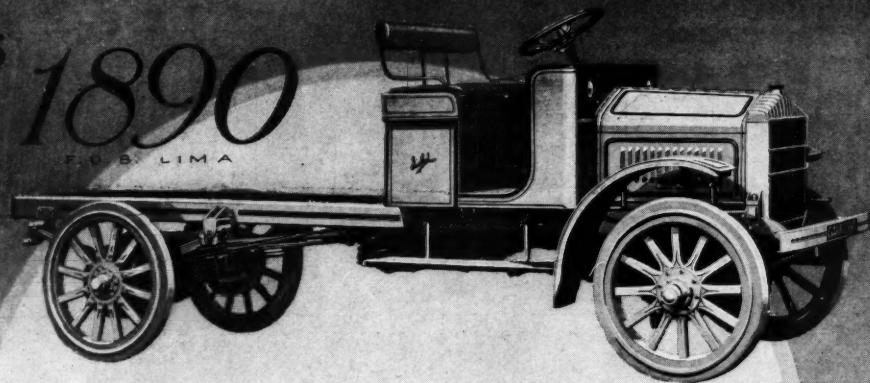
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\$ 1890

F. O. B. LIMA



Announcing the
New Garford
1 1/4 Ton Model.



THE new Ton-and-a-Quarter Model 25 is in the truest sense a Garford—designed and built not merely to widen but to enhance Garford reputation for efficiency and durability.

Garford resources and facilities for its production in large quantities are exceptional.

Conditions most favorable for standardizing high-quality manufacture enable us to establish in this Garford a value of outstanding dominance.

This new Garford materially widens the field in which Garfords deliver the *Low Cost Ton Mile*.

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Pneumatic Cord Tires, 36 x 6" all around
Power tire pump & extra rim, \$285 extra
Electric Lighting and Starting, \$125 extra

2 Ton \$2990
3 1/2 Ton \$4300
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f. o. b. Lima

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The Garford Motor Truck Company, Lima, Ohio
Motor Trucks of all Capacities

Distributors and Service Stations in all principal cities

The Huskiest 1 1/4 Ton Truck Ever Built

Motor 3 3/4 x 5 1/8
Axle—Worm Drive, 1 1/2 ton size
Frame 1 1/2 ton size
Transmission 1 1/2 ton size





Bill O'Laden, Traffic Expert

On Consolidation and Conservation

"GOOD Mornin', Mister Specht," I says to our Boston Representative, pickin' up a tellygram from th' desk. "Good day, Mister Specht," I says as I opens it, an' reads—"Return for conference—Milbauer."

"Good afternoon, Mister Milbauer", I says, walkin' into th' New York office iv th' Trans-Continental Freight Company. "'Tis I as is here f'r y'r conference, confabulation, or any other 'Con' ye have by ye'."

"Bill", he says, "I'm told y'r articles is good, but they is too long, an'—" "Too long!" I says, "I'll have a few wur-rds on that". "Make 'em few, Bill", he says. "We are busy th' day, an' make 'em few in y'r article this month. The conference is adjourned 'sine die'", he says, an' sure it was.

The life iv a lithrachoory man is hard, I thinks,

sittin' down at me desk. "Give us wur-rds", says the readin' public. Ye give 'em to 'em, an'—"Don't hand us so many," they hand ye.

Back to a thruck f'r ye, Bill, I thinks, whin— in walks th' sweet young lady from th' Boss' office. "What's the idea, Bill?" she says. The idea is that I've no idea how to convey in a few wur-rds the idea of th' great savin' iv T-C. F. CO. Service to Shippers iv Household Goods. "Thats easy", she says. "Easy! Go on", I says. "I'll do that Bill", she says, "write this: *Trans-Continental Freight Company Service to th' Household Goods Shipper, means—Consolidation iv his goods, and Conservation iv his time, cash, and goods.*"

"Y'r tip has saved me skin", I says, "an'—" "Th' shippers as heeds it will save their tin", she says, an' away she goes.

Don't miss Bill's talk next month. He is "there with the Goods", just as T-C. F. CO. Service always is.

TRANS-CONTINENTAL FREIGHT COMPANY

WOOLWORTH BLDG., NEW YORK

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Ellicott Square, Buffalo
Drexel Bldg., Philadelphia

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More Than 1000 Coal Dealers Use Autocars

THE Autocar Motor Truck has been approved and adopted by more than 1000 leading coal dealers because it meets successfully their exacting transportation demands.

This proved ability under supreme test has made the Autocar the standard transportation unit for representative firms in more than 400 lines of business.

Its short wheelbase saves time in maneuvering through traffic. Its double reduction gear drive gives effective power at lowest cost. And it is backed up always by the unusual Autocar system of factory branch service.

CHASSIS (1½ TO 2 TONS)
\$2300—97 inch wheelbase
\$2400—120 inch wheelbase

THE AUTOCAR COMPANY, *Ardmore, Pa.* Established 1897

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Autocar



Wilcox Company, Chicago

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ST. LOUIS, 1537 Boatmen's Bank Bldg.
NEW ORLEANS, 203 Marine Bank Bldg.
SAN FRANCISCO, 64 Pine Street
LOS ANGELES...517 Central Bldg.
SEATTLE.....402 Arctic Bldg.



H. C. L.
vs.
L. C. S.

Everybody has had experience with his Royal Highness, the High Cost of Living. Some people know, or think they know, how to humble that haughty autocrat; but the remedies are not effecting a cure to any visible extent.

In the meantime L. C. S. (the Low Cost of Shipping) as applied to movements of household goods from the Old Homes in the East to the New Homes in the West should not be overlooked as one of the few real saving devices which the Warehouseman can confidently offer his customers with assurance of satisfaction to all parties interested.

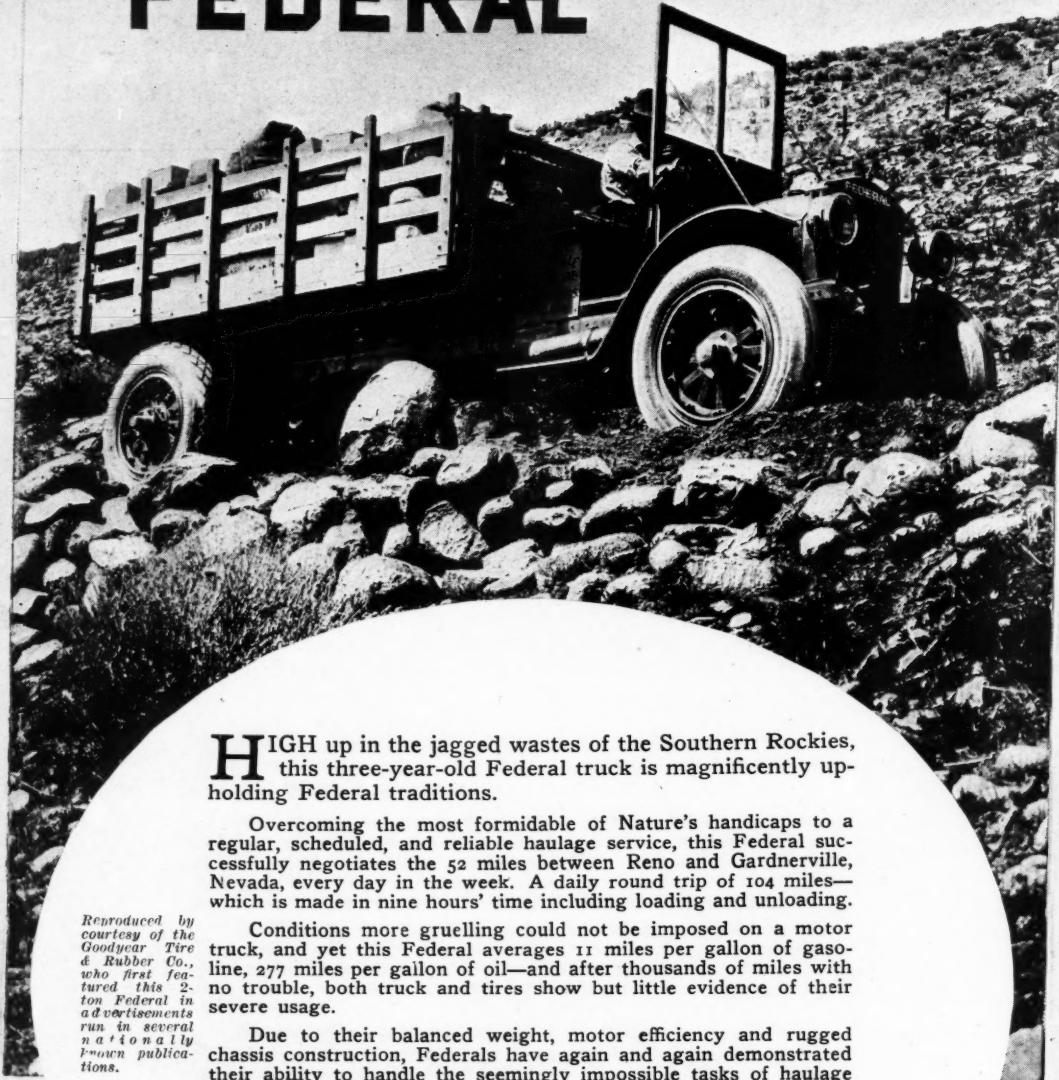
JUDSON SERVICE
SAVES MONEY
WEAR
AND TEAR

Judson Freight Forwarding Co.

90
It's
Another
FEDERAL

THE SATURDAY EVENING POST

June 28, 1919



HIGH up in the jagged wastes of the Southern Rockies, this three-year-old Federal truck is magnificently upholding Federal traditions.

Overcoming the most formidable of Nature's handicaps to a regular, scheduled, and reliable haulage service, this Federal successfully negotiates the 52 miles between Reno and Gardnerville, Nevada, every day in the week. A daily round trip of 104 miles—which is made in nine hours' time including loading and unloading.

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courtesy of the
Goodyear Tire
& Rubber Co.,
who first fea-
tured this 2-
ton Federal in
advertisements
run in several
nationality
known publica-
tions.

Conditions more gruelling could not be imposed on a motor truck, and yet this Federal averages 11 miles per gallon of gasoline, 277 miles per gallon of oil—and after thousands of miles with no trouble, both truck and tires show but little evidence of their severe usage.

Due to their balanced weight, motor efficiency and rugged chassis construction, Federals have again and again demonstrated their ability to handle the seemingly impossible tasks of haulage—at an economy of operating expense which is characteristic of Federal operation under all conditions of road and load.

*"Federal Traffic News" Sent On Request
to Responsible Business Executives*

FEDERAL MOTOR TRUCK COMPANY
DETROIT, MICHIGAN

GOODYEAR
AKRON

TRANSFER & STORAGE

PUBLISHED MONTHLY

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Volume XVIII

NEW YORK, SEPTEMBER, 1919

No. 9

STUDY THE SPREAD IN RATES

Freight Traffic Experts Say Majority of American Shippers Ignore Problem of Reducing Transportation Charges

CO-OPERATION vs. INDEPENDENT DISTRIBUTING

How the Central West Furniture Men Worked Out a Solution

THE time has come when the man who manufactures, the man who distributes products, and the man who sells in wholesale or job or retail lots, must look around him and provide for himself the means for moving as much of his traffic as possible in carload shipments. Less than carloads rates must be compared with carload rates. Only in this way may be ascertained the percentage of saving in cost which may be effected by adopting the carload lot system.

Co-operation is one answer to the problem of meeting the repeatedly advancing freight rates.

The co-operative method of shipping is to-day only in its infancy in this country. The traffic manager will tell you that—basing his assertion on what he knows are the facts. The big national distributor admits it is true.

Thousands of shippers have not given the subject the slightest consideration, and this oversight, unnecessary and un-American, is costing them millions of dollars in profits annually and—which is of interest to the

ultimate consumer—the retail prices of goods, product by product, are correspondingly higher than they should be.

The traffic expert will tell you that the trouble lies in the average shipper's unfamiliarity with his distributing methods in relation to the spread between the less than carload and full carload rates. The traffic man's chief duty to his employer to-day is to acquaint him with that information. The employer must be educated to keep this spread of rates in mind constantly and to govern his shipping business accordingly.

The big fundamental is this: *the higher the freight rates, the wider will be the spread.*

With Chicago as an example, few shippers realize that the difference between less than carload and carload rates to New York on an article taking first-class in small quantities and fifth-class in carload is .675 cents a hundred pounds. This is a saving of 60 per cent. Where the article shipped is classified second-class the difference is 54 cents

FREIGHT rates are on the upward swing, commensurate with the advancing prices of all commodities.

Traffic men concede that the increase in freight rates has averaged 40 per cent. during the past year or two. A better wage scale granted the shopmen by the United States Railroad Administration would foreshadow another rate advance equally as drastic.

This problem is a vital one. It concerns the manufacturer, the wholesaler, the jobber and the retailer. How the situation can be met and the problem solved is of such paramount importance as to deserve intensive inquiry, study and discussion.

What do YOU know about it?

or 54½ per cent. Where it is third-class, the difference is 30 cents, or 40 per cent.

When intelligent thought is given to this by manufacturers and distributors universally—and the trend is in that direction—many of the present shipping practices will be eliminated as undesirable and unmodern. *In their stead will be adopted the co-operative system.* Traffic experts say the change is certain to come.

Where the Forwarder Fits In

It will come when the shipper analyzes his less than carload tonnage and assembles into carload lots as much of his product as is possible and bills the car to a competent distributor or warehouse company who will unload the car, pro-rate the freight charges based on the actual weight of the goods shipped and at the carload rate for freight, supervise deliveries when goods are called for by the ultimate consignee's trucks; and who will give the consignee the option of a sidewalk delivery or who will, in return for a reasonable drayage charge, transfer a shipment which, included in the same car, is destined to a point beyond the distributing center.

It is this general plan which may with advantage be broadened by shippers co-operating, in the preparing of carload consignments, with other shippers—both those who are sending forward the same commodities and those whose traffic in carload lots moves under the same carload freight rate.

Manufacturers and shippers may use the services of forwarding agents who make a practice of sending consolidated cars between two points. When the forwarder is used, naturally his earnings are to come out of the saving in freight charges resulting from his method of consolidation.

Showing Why the Spread in Rates Should Be Studied

Class and Rate at which furniture moves from Grand Rapids to New York, Class 2 Being the Carload Rate

Class 2.....	\$0.91 per Cwt.
Class 1.....	1.04 per Cwt.
1½ Times Class 1.....	1.56 per Cwt.
2 Times Class 1.....	2.08 per Cwt.
2½ Times Class 1.....	2.60 per Cwt.
3 Times Class 1.....	3.12 per Cwt.

Table Giving Rate for Various Kinds of Furniture as Moved from Grand Rapids to New York l.c.l. as compared with consolidated cars. Note the saving to shippers.

Article	L. C. L. Rate	Consolidated Car (C. L.) Rate	Saving Per Cwt.*
Book Cases.....	\$1.71	\$.575	\$1.135
China Closets.....	1.71	.575	1.135
Tables.....	1.71	.575	1.135
Side Tables.....	1.71	.575	1.135
Davenport.....	1.71	.575	1.135
Costumers.....	1.71	.575	1.135
Stools.....	1.14	.575	.565
Chairs.....	1.14	.575	.565
Desks.....	1.14	.575	.565
Chifferobes.....	1.14	.575	.565
Bureaus.....	.875	.575	.30
Chiffoniers.....	.875	.575	.30
Dressers.....	.875	.575	.30
Beds (Wooden).....	.875	.575	.30
Sideboards.....	.875	.575	.30
Buffets.....	.875	.575	.30

(*Distributors' charges not deducted)

The manufacturer may prefer to co-operate direct with other manufacturers—that is, with the machinery or soap makers or with producers of any other given commodities; or he may choose to make use of the forwarder. That is his option. But necessarily the forwarder is a handy agent for the smaller shipper who professes to have no time to make a study of the classification table and the spread in freight rates; and many traffic men believe that the forwarder's services will be in increasing demand as the value of those services becomes better known.

Consider for a moment the viewpoint of the consignee, particularly the large wholesaler or jobber. A generous saving in transportation charges may be effected by concentrating in one warehouse, at some central point, small lots coming to him from any one territory. A receiver of this kind not only reduces his transportation charges when his traffic comes to him in carload lots, but he eliminates the customary cartage charges incurred at point of destination—for the modern wholesaler or jobber is located away from the congested area of a municipality and has direct track connection with the carriers, thus making truck or team deliveries unnecessary.

How One Industry Does It

Granted that the consignor has the choice of sending his goods forward independently at less than carload rates or, by co-operating with others, at full carload rates, obviously *it is to his own interest to reduce his expenses to the minimum.* Exercise of this option by every shipper in the United States would serve in a measure to check the menace of a higher national freight bill.

There is nothing theoretical about all this. Furniture manufacturers in Grand Rapids, in St. Louis and in Rockford, Ill., have proven it to be practical. And what these manufacturers have accomplished—conservation of many thousands of dollars annually through co-operating on consolidated shipments—is something which *may be applied, and should be, to virtually every commodity produced in the country.*

Turning to the situation in Grand Rapids, we learn that at one time some forty makers of furniture shipped usually independently in less than carload lots. To-day these shippers, organized into the Furniture Manufacturers Association of Grand Rapids, have in operation a co-operative system which eliminates this costlier method. Briefly, their products are pooled for shipment and leave the Michigan city in carload lots—at the lower rate. The same situation prevails at St. Louis and Rockford, where these shippers are organized respectively as the Manufacturers Board of Trade of St. Louis and the Manufacturers and Shippers Association of Rockford. In St. Louis the members number about thirty-five and in Rockford about twenty.

In Grand Rapids a traffic and carloading committee was created and a warehouse was leased. To-

SOME of the traffic experts in this country say that the Grand Rapids furniture manufacturers are among the pioneers in the field of practical cooperation, on a big basis, in pooling distribution of their wares in consolidated car shipments from Michigan's southern peninsula to warehouses from Coast to Coast. F. E. Jones is manager of the traffic and carload department of the Furniture Manufacturers Association of Grand Rapids and knows more about distribution problems than most people do. Forwarding of furniture in a way to reduce costs is his present job, but he sees no reason why the methods of the Grand Rapids furniture makers cannot be applied to other industries with equal benefit. Here is what Mr. Jones has to say:

"I believe that there is a big field for consolidation in other lines of business. It has proven in our case to be a most satisfactory way of marketing our products."

One feature which Mr. Jones introduced was the publication of a bulletin which, sent to the member factories, tells which cars are to be loaded each week. As speedily as the tonnage comes from these factories in less than carload lots, his problems is to see that they are turned into carload lots, put on the rails and started on journeys which, taking into account the increasing freight rates, cost proportionately less to-day than they did before the Grand Rapids furniture men organized.

He solves that problem by studying the spread in freight rates.

day the business has increased to such extent that the association, which already has twice been compelled to obtain larger quarters to accommodate expansion, has purchased a plot of property on which it will build its own warehouse to take care of the members' furniture business. Plans are being drawn for a structure 400 feet long and 80 feet wide, with two stories and basement. Not all of this space will be used for carloading, but at least one entire floor will be devoted to it.

In this warehouse the present system will be followed—assembling from the various member factories the products which ordinarily would be sent out in less than carload lots; when assembled, they are moved forward in consolidated shipments to some transfer or warehouse company at destination for distribution. These destination points include Boston, Springfield, Mass., Memphis, St. Louis, Kansas

City, Mo., Los Angeles, San Francisco, Oakland, Portland, Ore., Dallas, Philadelphia, Pittsburgh, Newark, Chicago and New York.

Ignorance Is No Excuse

Grand Rapids turns out from 100 to 150 cars of furniture every month. An authoritative estimate of this product shipped yearly from that city alone is between 13,000,000 and 20,000,000 pounds. St. Louis sends forward daily from three to five carloads and Rockford several carloads. These manufacturers produce the bulk of the nation's furniture and ship direct into every section of the country.

The value of conserving costs of distribution over so many miles of rail needs no comment. The manufacturer or shipper who refuses to recognize the significance of it is only delaying his own progress. There are two methods of distribution and one is cheaper. So the live-wire traffic expert says.

HE KICKED AT CO-OPERATION!

KANSAS CITY warehousemen have performed a valuable service to local jobbers during the recent scarcity of storage space by co-operation in securing needed space. A jobber needed warehouse space for a textile item. He offered the business to a warehouseman, who accepted the contract although he did not have the necessary space in his own houses. He turned over the goods to another warehouseman. Later consignments, given by the jobber to different warehousemen, were distributed to available space, in each instance the warehouseman receiving the goods, thereafter dealing directly with the consignor.

The jobber, upon first learning of such distribution, was angry and summoned the warehouseman to whom

he had given the order and proceeded to put him through some cross-examination.

"We gave you service, didn't we?" the warehouseman asked. "We found the space, and you are getting service now, without yourself having to scout around for the space. Our help in getting your goods located has cost you nothing, and you are paying no more for warehousing than if the warehouseman who accepted the business had stored the goods in his own house. Where's your kick?"

"It looked like you were putting something over on me," the jobber confessed. "But I guess you are right. I can see now that the co-operation of the warehousemen was in my interest, after all."



Birdseye view showing the ten store-houses and piers A and B at the Pouch Terminal

Eastern Project Combines Port, Terminal and Warehouse Facilities

Offers Many Attractions for Manufacturers Engaged in Import, Export and Domestic Distributing

ECONOMIZING in space, avoiding congestion, saving time and eliminating waste energy are the major thoughts upon which an Eastern warehouse company began the development of a combination port, terminal and warehouse project, an enterprise which in 2 years' time has reached an enormous activity, both in facilities and business transaction.

It was to aid the manufacturer and shipper in the importing and exporting of his products, both raw and finished, and to assist the national distributor to minimize his distributing costs that the three fundamentals—port, terminal and warehouse facilities—were combined at one plant.

One of the advantages of this new development to the manufacturer is that he can get available bottoms for his exports in much quicker time by having his products stored at the warehouses in advance than by waiting until he thinks he can secure an available bottom and then shipping his goods from his factory to the port. This advantage means that both the manufacturer and purchaser are receiving a better transportation service.

Besides giving such valuable aid to the manufacturer and shipper, the developing of this combined project has increased the port facilities of New York, and to a certain extent aided in reducing the congestion. In other words, the offering of piers and other facilities to steamship companies for them to berth their ships has increased the activities of the port and has retained for New York a business which would in all probability have been taken to Philadelphia or some other Atlantic port.

Terminal Outgrowth of American Dock

The company that has developed this enterprise is the Pouch Terminal, Inc., which is an outgrowth of the American Dock Terminal of New York. The American Dock Terminal has been operated by the Pouch interests during the past 40 years. The facilities of the American Dock are also of the combination type, embracing forty-two warehouses and six large piers at Tompkinsville, Staten Island, N. Y.

In the purchasing of the land for the development of the new terminal, the Pouch people realized that

location is an important factor in the successful operation of such a project. In 1917 the Pouch people purchased 33 acres of land at Clifton, Staten Island, N. Y., which is an ideal location for the development of a terminal. The land on which the project was developed is located in a sheltered cove near the entrance to the harbor of New York, directly on a 40-ft. channel, within the free lighterage limits, connected by direct rail facilities, and offering easy access to Manhattan.

The activities of the Pouch company have increased so rapidly that to-day two-thirds, or 22 acres, of the area of the ground purchased has been developed, and warehouses, piers and sidings constructed. Since the project was started 2 years ago, twelve warehouses having a total floor space aggregating over 230,000 sq. ft. and three piers having a total of 369,800 sq. ft. have been constructed. Although this is an enormous increase in facilities, considering the brief period since the first pier was constructed, the company is still expanding its facilities, and it will not be long before the other 11 acres, or the whole 33 acres, are developed with large warehouses and piers.

In the constructing of the terminal every thought of modern warehousing and the turning of a steamer as quickly as possible was kept in mind. Both warehouse and piers are equipped with labor saving devices of various kinds for the efficient and economical movement of goods—devices such as gasoline locomotives which are used for switching cars from the plants to the main lines of the B. & O. railroad; gasoline tractors for hauling goods on three-wheeled trailers between the piers and warehouses; spiral chutes, hoisting machines and traveling I-beam conveyors.

The largest warehouse, which is of rectangular shape, is erected of reinforced concrete in two units,

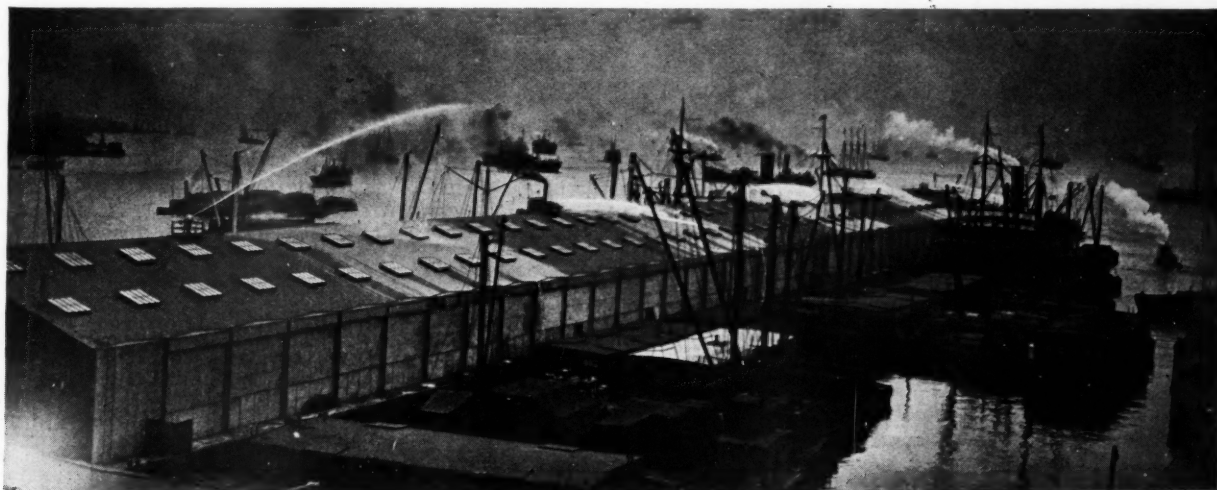


Pier C is 130 x 830 ft., and has a total floor space of 107,900 sq. ft. The height of the ceiling is 21 ft. at the eaves. Note the steamer being docked

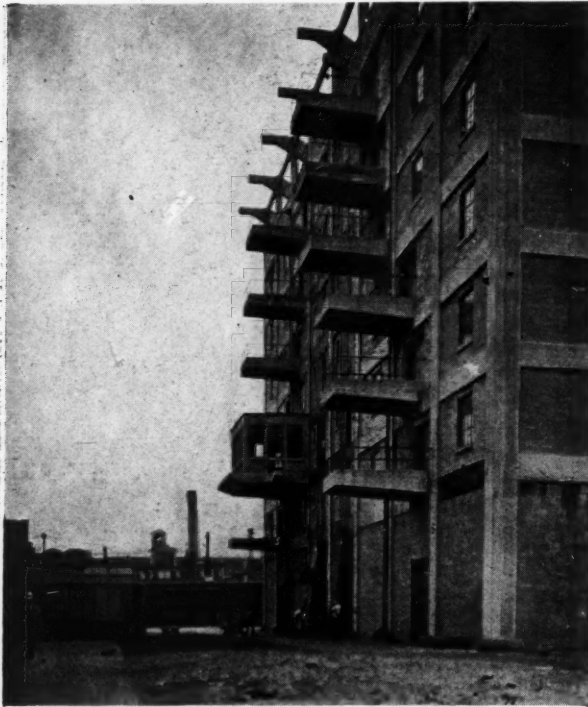
each being seven stories high, 120 by 80 ft., or a total area of 19,200 sq. ft., covered by the two units. The total floor space of the warehouse is 134,400 sq. ft. It is well lighted on all four sides by the large number of windows. Each of the seven floors has a carrying capacity of 500 lbs. per sq. ft., while the height of the ceilings is 10 ft. The building is equipped with an automatic sprinkler system and heavy iron doors as a further protection against fire.

Labor Saving Devices Used

The two-unit warehouse is equipped with the latest design of modern storage facilities, being laid out in two sections with an elevator located in the center. In addition there are electric hoists and a spiral chute used at this building. The spiral chute extends through the building from the first to the seventh floor. It is used for the outward movement of goods and has a capacity of

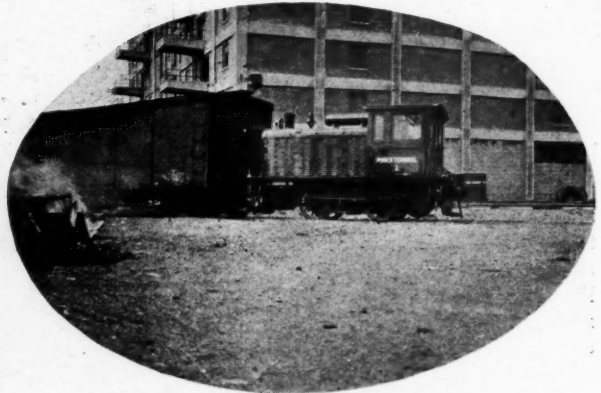


Another view of Pier C showing the fire apparatus being tested. The width of all slips is 320 ft. at the bulkhead and 275 ft. at the pierhead, while the depth is 30 ft. at mean low water



The new seven-story fireproof warehouse just completed. Note the supports from the roof for the installation of an I-beam conveyor and the staggered platforms extending from each floor for handling goods to and from freight cars and vehicles below

conveying up to within 2,500 lbs. in weight without damaging the goods. In addition to the present electric hoist, it is the intention of the company to install an I-beam conveyor within the near future, provisions



A gasoline locomotive is operated by the Pouch people for switching cars to and from the main lines of the B. & O. R. R.

having been made, such as supports from the roof for the installation. This conveyor will operate to either unit of the building, delivering goods to the staggered concrete platform, which extends, one from each floor, in each unit.

Construct Ten Temporary Warehouses

The other ten warehouses are called temporary stores. They comprise a one-story structure, constructed of corrugated iron, each being 120 x 80 ft. and having a total floor space of 96,000 sq. ft.

The large warehouse is used for storing all classes of goods that are to be held for a long period, while the store warehouses are utilized for goods that are to be held for a short period only—such merchandise as has been brought to the terminal either by steamer or rail and the free time having expired. The company will also lease a section or a floor in the larger



Interior of Pier C, showing leather, rubber, cotton, beans, cocoanuts and various classes of merchandise being stowed until the free time has expired. This pier is leased by the Oriental Steamship Co.

Below is one of the tractors used at the Pouch Terminal. Merchandise is moved from the piers and warehouses or vice-versa on three-wheeled trailers made up in trains and hauled by tractors. At the left is a general view of the driveway leading into the piers. The temporary store-houses are shown in the background at the left



corrugated iron walls. They are equipped also with an automatic sprinkler system, thus enabling the company to obtain a low insurance rate.

All three piers are well lighted by an unusually large number of skylights. Each pier is equipped with a concrete floor and has a carrying capacity of 500 lbs. per sq. ft. The height of the ceiling of the piers at the eaves is 21 ft.

The piers are known as A, B and C. Pier A, which is expected to be completed during September, is 1150 x 130 ft.; Pier B is 980 x 130 ft., and Pier C 830 x 180 ft.

A feature of the piers is the 320 ft. of space at the bulkhead and the 275 ft. space at the pierhead. The depth in the slip at mean low water is 30 ft. This 30 ft. depth runs out as far as the 40 ft. channel. Thus all three slips are of a sufficient depth, width and length

(Continued on page 24)

unit or a storehouse for a manufacturer desiring to have his own space or plant. The manufacturer can either have his goods handled by his own employees, or by those of the company on a time basis.

The three piers operated by the terminal cover a total area of 409,800 sq. ft. of land, and each is constructed of a wooden pile, a concrete deck and with

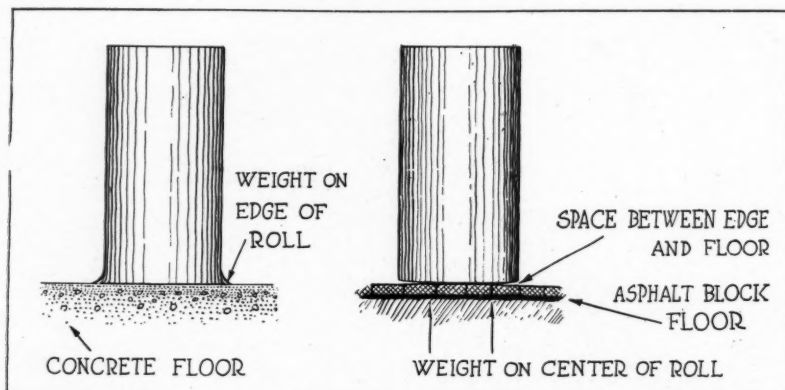


Interior of Pier B, showing how the Nippon, Yesen Kaisha Steamship Co., stows the goods its ships have brought in until the free time has expired. Note the unusual number of skylights

How to Handle Paper Storage

The Kind of Building Required—Facilities for the Economical Handling of Newsprint Paper

Warehouseman Studies the Problem and Secures 70 Per Cent of the Business in Pittsburgh



Paper stowed on concrete will bulge and split at the edge which rests on the floor after 2 months, while on an asphalt block flooring the weight is on the center of the roll, thus there is no damage whatever

BECAUSE it has made a special study of how to eliminate loss and damage in handling paper, one warehouse company is now handling 70 per cent of the newsprint paper shipped into Pittsburgh, or between 1200 and 1400 carloads per year.

Like everything else, there is a right way and a wrong way, an economical and an uneconomical, a profitable and an unprofitable way to store and handle paper. This particular warehouse company set out to find the right way, the economical way, the profitable way. It discovered that, involved in the problem and of primary importance, is the construction of the building to be used, particularly with regard to such details as the thickness of the walls, the height of the ceilings with respect to the carrying capacity of the floors and even the kind of material used for the floors.

It also discovered that the general layout of the building is a factor of great importance from the point of view of economical handling. It found that the location

of the elevators and of the receiving and delivery platforms and the scientific selection and operation of devices designed for the efficient and economical movement and piling of the paper must also be given careful thought.

What a Paper Warehouseman Should Know

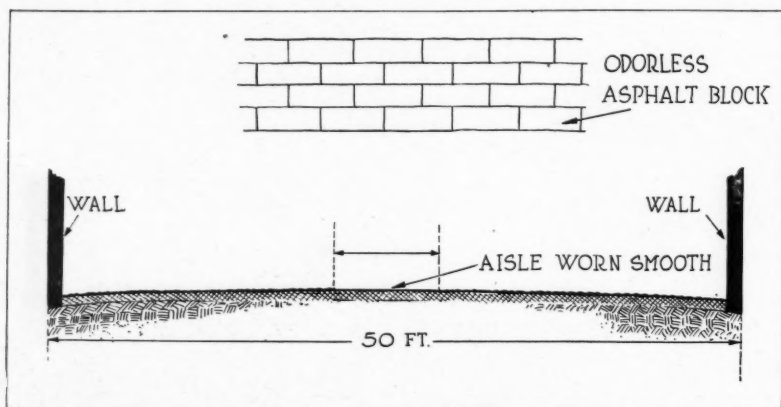
Here are the things that this company learned about handling and storing paper:

The building should be of fireproof construction so as to receive as low an insurance rate as possible.

The walls of the building should be at least 12 in. in thickness so that the paper will not be affected by changes in the weather. A high temperature for a long period will have a tendency to dry the paper and cause it to crack. A moderate temperature evenly maintained is the best for this kind of merchandise.

The height of the ceiling with respect to the floor carrying capacity has a vital relationship to the profits derived from this class of storage. Newsprint paper is manufactured in rolls of various lengths, diameters and weights, but there are two sizes which are used most. They come in rolls 36 in. and 72 in. long with a diameter of 36 in. The weight of the 36 in. roll is between 550 and 700 lb., while the 72 in. roll weighs between 1100 and 1400 lb. With such a weight it would not be efficient or economical for a warehouseman to handle newsprint paper in a building where the ceiling had a height of 12 ft. and the floor carrying capacity was only 250 lb. per sq. ft.

With a floor carrying capacity of 250 lb. per sq. ft., it would not be safe for a warehouseman to pile 36 in. rolls more than two high on end,



The walls of a paper warehouse should be at least 12 in. in thickness in order that a moderate temperature be maintained. The aisles of a warehouse having an asphalt block flooring will wear as smooth as concrete

while the 72 in. roll should be set one high only. Allowing 1 ft. for the space occupied by the sprinkler systems with a 12 ft. ceiling it would mean that there would be 5 ft. of space that would be earning no income. To realize a profit on this class of business, the ceiling should have a height of between 9 and 10 ft. when the floor carrying capacity is 250 lb. per sq. ft. With a floor which has a greater carrying capacity than 250 lb. per sq. ft., the ceiling should of course be of sufficient height so that the full capacity may be utilized.

In the stowing of paper some warehousemen will pile on end while others believe it is more economical and efficient to pile on the roll. Investigations indicate that a large number of manufacturers believe the better method is to pile paper on end.

Proper Construction of Floors

There are various classes of materials used in the construction of warehouse floors, the principal ones being cement, wood and odorless asphalt blocks. The objection to concrete is that it will wear down, crack and break besides pulverizing and causing dust to accumulate. Several large paper manufacturers who have made a study of storing their product claim that when stowing rolls of newsprint paper on a concrete floor, on end, there is an attraction between the two. This attraction has a tendency to throw the greater part of the weight of the roll on the edge. After newsprint paper has stood on concrete for 2 months or so, the edge of the roll comes in contact with the floor and will begin to bulge out. In time it will split, thus causing damage sometimes to the extent that the greater part of the paper cannot be used. In any case when this action occurs the split portion of the paper has to be rolled off before it can be used.

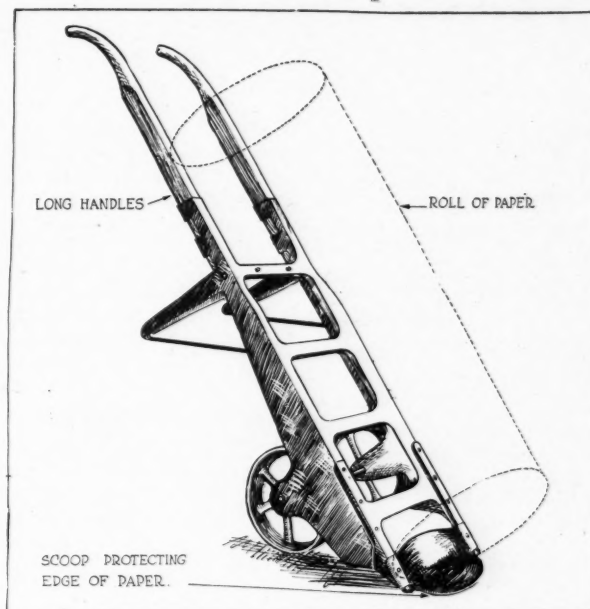
Wooden floors will not damage the edge of the paper as will concrete but this flooring is not fireproof, and is therefore not desired by warehousemen who are operating fireproof plants.

A floor that has been installed at the warehouse under consideration and is recommended by several large paper manufacturers is that of odorless asphalt blocks. It has been found through investigation that when paper is stored on this kind of flooring, the weight of the roll will be in the center instead of on the edge, there is therefore no chance of the edge of the roll becoming damaged or split. The drawings on page 12 show a comparison between storing paper on a concrete and the odorless asphalt block floor.

Advantage of Asphalt Block

The company that has studied this activity operates a building of four stories, 50 x 900 ft. and two floors have been constructed of this asphalt block. There is very little difference between the price of asphalt block and cement floors. The latter cost from 15 to 18 cents per sq. ft. while the odorless asphalt block costs between 20 and 25 cents per sq. ft. One decided advantage of the asphalt block is that it will not crack or pulverize. The aisles wear down as smooth as concrete.

For the efficient handling and economical movement of newsprint paper it is necessary to have a force of men who are especially trained in this activity. The elevators should be located as near to the receiving and delivering platforms and at the same time as near to where



A hand truck especially adapted for the handling of 72-in. rolls of newsprint paper. The features of the truck are the unusually long handles and the solid scoop which protects the edge of the paper from scraping the floor while being moved

the paper is to be stored as possible. This will eliminate a great deal of lost man-power and will keep the handling expenses at a minimum.

Both the receiving and delivery platforms should be of sufficient width to allow a number of rolls to be so placed that there will be no congestion while the men are moving the paper to or from the freight cars or vehicles. The platforms should also be under cover to protect the paper from the weather.

Special Truck for Handling Paper

The trucking of the paper should also be given considerable study. Investigations have indicated that it is almost impossible to handle a 72 in. roll of paper on an ordinary hand truck. Furthermore, the nose of the hand truck should be of one solid piece so that the edge of the paper will rest on it and not project through the opening thus allowing the edge of the paper to scrape the floor and become damaged. In other words, it is necessary to have a truck of special specifications for the handling of roll paper efficiently and economically. The specifications of the truck being used is as follows:

Length overall	76 in.	Wheels	12 in. by 2 1/4 in.
Width of nose	24 in.	Height	13 in.
Width at handle	23 in.	Weight	130 lb.

Where a warehouseman has a ceiling of sufficient height and a floor carrying capacity of 250 lb. per sq. ft. and he desires to pile either two or three 36 in. rolls or a 36 in. and 72 in. roll above one another, it is of course necessary for him to utilize some kind of a piling machine. These machines will enable him to make use of all available space and will reduce the cost of handling the paper. Such machines can be operated either by hand or by electricity.

Labor Unrest

Warehousemen's Major Problem

Increasing Costs, Low Rates and Inefficient Railroad Service Other Problems Confronting Industry

Reports from Thirty-seven Cities in Twenty-three States

WHILE the percentage of warehouse space occupied during August was practically the same as in July, the warehouse industry is confronted with a greater number of problems which have a greater national aspect than during any period this year.

Labor not only continues to be the major problem, but it is spreading to sections that heretofore have had plenty of satisfactory labor. In some sections it is impossible to secure efficient help even at extraordinary high wages as compared to those paid a short time ago.

How to meet increasing costs and at the same time operate at a fair profit is a subject being given considerable attention by warehousemen in many sections. Labor is, of course, one of the problems that has a direct bearing on increasing costs, while the low rate charged in some sections undoubtedly also affects the situation. Other problems before the warehousemen in various sections are: Unintelligent competition in both the merchandise and household goods branches, the inefficient service furnished by the railroads and how to make a profit in transporting household goods.

Reports from Thirty-seven Cities

The following cities are confronted with problems of major importance, according to reports received from thirty-seven cities in twenty-three states and Canada:

EAST—Four cities in two states, namely, New York and Utica, N. Y., Boston and Fall River, Mass., are confronted with labor unrest, while the warehousemen at Baltimore, Md., are face to face with unintelligent competition; Springfield, how to get higher rates in order to operate business at a fair profit; Philadelphia, the poor service furnished by the railroads; Utica and New York, how to meet increasing costs, and Boston, how to meet the demands for additional warehouse facilities.

SOUTH—The warehousemen of two cities, Jacksonville, Fla., and Atlanta, Ga., are confronted with unsatisfactory labor. Outside of labor unrest, the warehousemen in this section report no special problems.

SOUTHWEST—At Dallas labor and the lack of business at San Antonio are the two subjects being given much attention and consideration by the warehousemen of Texas.

CENTRAL WEST—Kansas City, Mo.; Duluth, Minn.; Cedar Rapids, Iowa; Chicago, Milwaukee, Wis., and Canton, Ohio, are the cities troubled with labor unrest. At Kansas City, Mo., the railroad situation is no better than it was during July, while at Alton, Ohio, the problem is how to make a profit at the rate being charged for trucking of both merchandise and household goods.

WEST—As with other sections, labor is the most impor-

tant question before the warehousemen of the West. Seven cities—namely, San Francisco and Oakland, Cal.; Denver and Colorado Springs, Colo.; Boise, Idaho; Portland, Ore., and Seattle, Wash.—are facing labor unrest—inefficiency of the class that is to be had, the quick turnover or the high wages demanded.

CANADA—At Winnipeg, Man., the rates, especially for cartage, have not been sufficiently advanced to keep pace with the increased production. In other words, few of the transfer and storage companies are able to realize a fair profit on this class of work, while at Calgary, Alberta, there is a shortage of experienced packers and craters. The major problem at Hamilton, Ont., is that of the services being furnished by the railroads.

81.2 Per Cent of Warehouse Space Occupied

According to reports received from warehousemen in thirty-seven cities in twenty-three states, 81.2 per cent of the merchandise warehouse facilities are occupied. This is a slight increase as compared with the percentage of last month. While there is a falling market for merchandise space in some sections of the South, this part of the country leads the other four sections by having a larger percentage of the space occupied. In the South 87.5 per cent of the warehouse facilities are occupied; the Central West is second with 84.8 per cent; the East, third with 83.3 per cent; the West, fourth with 77 per cent, and the South-west last, with 75 per cent.

The facilities of the household goods warehouses are 90.6 per cent occupied, a slight increase over July. Household goods warehouse facilities occupied in the five sections are: East, 94.6 per cent; West, 91.3; South, 90, and the Central West, 86.6.

Good Demand for Space in East

EAST—At New York, approximately 84 per cent of the merchandise warehouse facilities are occupied. This percentage represents a slight decrease at the inland warehouses and an increase at the waterfront and railroad plants. During August labor was the major problem confronting the warehousemen of this city. A new scale of wages, with a minimum of \$28 for a 44-hour week for warehouse labor, became effective Sept. 1. The previous wage for this class of labor was \$26 per week. Grocery supplies and other general foods are being handled in the warehouses at this time. No particular commodity is reported as being handled in extraordinarily large quantities.

The household goods warehouses are 98.7 per cent occupied, according to reports received. Moving is still on the downward path, due to the fact that there is a shortage

of Lousing facilities. The van owners of this city have entered upon a new agreement with the labor union and have granted an increase in wages and a reduction in hours.

Merchandise facilities at Utica, N. Y., are 85 per cent occupied, a decrease of 5 per cent as compared with the space utilized during July. The major problem of the warehousemen in that city is keeping down operating costs and trying to find a solution to meet the labor situation.

At Worcester, Mass., the household goods plants are approximately 100 per cent filled. The problem here is how to satisfy the customers at the prevailing prices.

Ninety per cent of the merchandise facilities are occupied at Springfield, Mass., this being about the same as during July. The household goods facilities are filled to capacity and still there is a rising market. The problem is to get a rate which will enable the warehousemen to make a fair profit on their investment.

The market for merchandise facilities is decreasing at Fall River, Mass., approximately 75 per cent of the space being occupied, which is 15 per cent lower than that utilized during the last month. Cotton and cotton waste are being handled in large quantities. Labor conditions here are unsettled at this time.

Boston's merchandise facilities are 88 per cent occupied. The general conditions of the warehouse industry in this city are better than at any time during the year. Practically all the household goods warehouse space is utilized, although there is a falling market. To find adequate space for the storage of household goods is the problem of the warehousemen in this city.

Ninety-five per cent of the Bridgeport merchandise warehouse space is occupied. While there is a great deal of labor trouble at this city, the warehousemen have been able to satisfy their needs.

Cutting Rates to Get Business

There is little change of the merchandise space occupied at Camden, N. J., at this time, as compared with July. Approximately 75 per cent of such facilities are occupied.

At Baltimore, Md., one of the largest plants reports 74.8 per cent of its warehouse facilities occupied, and while there is a rising market for such facilities, the above percentage is lower than that during last month. Due to this fact, many of the smaller warehousemen are cutting rates to such a low figure that it is almost impossible for them to realize a fair profit on their investment.

At Philadelphia, warehousemen operating the larger plants report 88 per cent of the merchandise space occupied. Cotton piece goods is the commodity which is being handled in the largest quantities. The problem at this city is that of the inefficient service furnished by the railroads.

Pittsburgh's merchandise facilities are approximately 80 per cent occupied, this percentage being about the same as July. While there is a falling market for such facilities, reports indicate that there will be a good demand for same during September. Foodstuffs are being turned over very rapidly with the exception of beans. Dry goods are moving in and out about the normal rate. The warehousemen here are confronted with no problems, except that many of their customers are beginning to wonder what they will do with the stocks of brandies located in special bonded warehouses.

The household facilities at Chester, Pa., are 85 per cent occupied, an increase of 10 per cent as compared with July. Moving in this section has also increased 10 per cent during the past month.

SOUTH—Merchandise warehouse facilities at Jacksonville, Fla., are 85 per cent occupied. While there is a falling market for storage facilities, there is a larger num-

ber of pool cars being shipped and redistributed from this section than during July. Flour and canned goods are being handled in large quantities. Labor is fair in quality, but far below the average.

Household goods facilities at Miami are 80 per cent occupied, which is an increase of 10 per cent over last month. The problem of the warehousemen of this section is unsatisfactory labor. At Atlanta, Ga., household goods facilities occupied are approximately 100 per cent. As with various other sections of the country, labor is the subject being given considerable attention by the warehousemen of this city. There is little change in the merchandise warehouse activities at Augusta, Ga., practically the same percentage of the space—that is, 40 per cent—is being utilized. As during July, pool cars are being handled in large numbers by the warehousemen.

Southwest Confronted with Labor Unrest

SOUTHWEST—Merchandise warehouse facilities at Dallas and San Antonio, Texas, are 75 per cent occupied. This percentage indicates a 5 per cent increase at San Antonio and about the same percentage decrease at Dallas. Labor conditions are unsettled at Dallas. The major problem here is that the warehousemen are unable to retain men for any length of time. At San Antonio all classes of merchandise are being handled in large quantities. At this time there is a rising market in both cities for household goods facilities.

CENTRAL WEST—Merchandise is moving rapidly from warehouses at Kansas City, Mo. More space is available than at any time during the past year, and yet this available capacity is comparably small, probably not more than 10 per cent of the total capacity. Kansas City needs a large increase in space, one warehouse company planning to build soon, and other companies will increase space within a year. New business offered for the fall is unusually large. Quotations are being made to many manufacturers entering Kansas City for the first time. This trade will probably begin to store in September or October. Labor is practically the same as during July. One company has changed from negro to white labor, accomplishing the changes in three days with little inconvenience.

Errors by railroad freight agents in checking shipments have been a source of annoyance to the warehouseman. There are many instances in which the warehouse manager has had to spend much time in tracing inconsistencies in railroad records.

The Duluth, Minn., household goods plants are 80 per cent occupied. Labor is the biggest problem of the warehousemen in this section. Not only are the wages demanded high, but it is hard to get efficient men.

Household goods facilities at Duluth, Minn., are 80 per cent occupied. The warehousemen in this city are also troubled with labor unrest.

Handle Implements in Large Quantities

Merchandise plants at Cedar Rapids, Iowa, are 75 per cent occupied, this figure representing an increase of 20 per cent as compared with July. Farm implements and mill products are being handled in large quantities. Labor turnover is also a situation confronting the industry.

Topeka, Kan., household goods space occupied is about the same as during July. Labor conditions are normal and there are no special problems confronting the warehousemen with the exception of the high cost of operation.

There is little change in the warehousing activities at Des Moines, Iowa, although three of the larger companies are experiencing labor difficulties in the teaming end of their business. At this writing the drivers of three com-

(Continued on page 40)

A Simple Record System for the Distributing Warehouse

Four Forms Record All Transactions—Provide Instantly Available Detailed Data—Clerical Work Reduced to a Minimum

A SYSTEM so simple and efficient that a record of all transactions pertaining to the distribution of any class or brand of merchandise handled through a public warehouse can be had at a moment's notice, either by the national distributor or merchandise warehouseman, has been worked out by a Pittsburgh warehouseman. It involves the use of four forms only, including the bill of lading.

While the system includes the use of but four forms, it nevertheless gives in great detail complete data relating to the class, quantity and condition of the merchandise received by the warehouseman, the number and weight of the car in which it was received, and the date, quantity and kind of merchandise delivered to the purchaser by the warehouseman. In fact, it covers all transactions from the time the merchandise is shipped from the factory until it is delivered to the jobber, retailer or ultimate consumer.

Another feature of this system is that the distributor's records are always the same as those of the warehouseman's, owing to the fact that a separate report of each shipment is sent to the distributor by the warehouseman at the end of each day. It is, therefore, unnecessary for the distributor to call for a weekly or monthly inventory of the stock at the warehouse unless he should desire a double check.

Five large national distributors and two merchandise warehousemen have so far adopted this system even though it has only been evolved a short time, and as many more national distributors and warehousemen are contemplating the adoption of it within a short period.

The principal form used is the card shown in Fig. 1. It is used as follows:

After a car containing one class or brand of merchandise has been received by the warehouse, the car number is filled in at the top of the form, or if the car contains a variety of brands or different kinds of merchandise, a card is made out for each particular kind.

The condition of the merchandise, the manifest weight, the number of the freight bill, the section of the warehouse in which the goods are stored and the storage rate per cwt. are also noted on the card. This card is made out in triplicate, form 1-A, the duplicate being sent to the distributor as a memorandum that the goods have been received at the warehouse. The third copy is placed in the warehouseman's file for future reference to verify his report in case the distributor should claim he did not receive an arrival notice.

Distributor's Records Same as Warehouseman

The national distributor is furnished a number of these cards, and after he receives the arrival notice or receipt from the warehouseman, he transfers the data from the arrival notice onto form Fig. 1, as the warehouseman does. Both the national distributor and the warehouseman place these cards on file according to the car or lot number, the distributor also filing under the class of merchandise and the warehouseman under the name of the distributor.

The warehouseman who evolved this system handles national distribution under two systems. They are as follows:

First—where credit is accepted—the jobber, retailer or consumer who has a standing credit account with the distributor can at any time order merchandise direct from the warehouse without first sending an order to the distributor. This is done with the larger firms so as to give them more efficient delivery service, and so that they can get additional stock at any time they desire. Furthermore, the giving of efficient delivery service has not only assisted the distributor in securing additional business or new accounts, but the distributor is better able to meet competition due to the fact that a large percentage of the jobbers, retailers and consumers are small quantity purchasers.

Second—where credit is not accepted—it is necessary for those

Advantages of Four Form System

- 1—*System gives complete record of all transactions from time merchandise is shipped by distributor until it is delivered to the ultimate consumer.*
- 2—*Distributor receives a daily report of all deliveries. Thus he has a complete record of all stock at the warehouse.*
- 3—*By having such records, the manufacturer does not have to call for a weekly or monthly inventory unless he desires a double check.*
- 4—*It does away with a large number of forms which are generally used by both distributor and warehouseman. This reduces the clerical work to a minimum for the distributor and warehouseman.*

FORM 3

No. _____ PITTSBURGH, _____ FOLIO _____

DUQUESNE WAREHOUSE COMPANY
DUQUESNE WAY AND BARREAU STREET

PLEASE DELIVER TO _____ OR BEARER _____

FROM CAR NO. _____

FOR ACCOUNT OF _____

PER _____

Right, Fig. 3—This form is made out after the order blank has been presented to the warehouse delivery clerk. It is made out in triplicate, one copy being filed at the delivery clerk's office, the second with the original order and the third is sent to the distributor at the end of the day

Form No. 3

No. _____ PITTSBURGH, _____ 191 FOLIO _____

DUQUESNE WAREHOUSE COMPANY

WILL PLEASE DELIVER TO _____ OR BEARER, SECTION _____

FROM CAR NO. _____

AND CHARGE TO ACCOUNT OF _____

APPROVED BY _____ RECEIVED IN GOOD ORDER THE ABOVE _____

DELIVERED BY _____

Left, Fig. 2—Is the form furnished the distributor and jobber by the warehouseman for ordering merchandise out of the warehouse. The warehouseman will not deliver any goods unless one of these orders are presented—that is, those manufacturers who are using this system

of merchandise received in that particular car or lot, the latter number being given at the top of the form. The first column is for the date the delivery was made from the warehouse, the second column, for the number of packages delivered and the third, the balance of that particular stock at the warehouse. The same system is followed when recording the merchandise listed as 700/25, No. 2 and 1,000/12½, No. 3 shown in columns two and three of Fig. No. 1. In the last column, under the heading "to whom," is inserted the name of the company or the purchaser that receives the merchandise from the warehouseman.

Reduces Clerical Work to a Minimum

In addition to these four forms, it is only necessary to use the bill of lading to cover all detailed data pertaining to the distributing activities as carried on by the five manufacturers and two warehousemen who have adopted this system.

This system was worked out because of the fact that no two national distributors or warehousemen utilized the same method in carrying on their distributing activities. In some cases the distributors have claimed that they are unable to get efficient service because of the fact that they never know whether a freight car has been received by the warehouseman or not. Many of these distributors have also claimed that they do not know what class of goods have been shipped from the warehouse and when they were shipped. In other words, many of them have stated that it is almost impossible to secure an inventory of the stock at the warehouse at regular intervals.

On the other hand, many merchandise warehousemen claim that it would take a large force of clerks to keep up to date some of the forms furnished by the distributor owing to the fact that they are so intricate, in addition to the large number of statements or records asked for.

This system which includes the use of only four forms does not require a large amount of clerical work; it is simple and can be relied upon for any detailed data that may be wanted.

Another plan adopted by the warehouse which evolved this system is that of furnishing the distributor with a set of the warehouse's bills of lading and having the distributor make out these bills for all shipments. This has not only eliminated a great deal of work for both the distributor and warehouseman, in copying from orders, but after the bills of lading have been made out the warehouseman has nothing else to do but follow instructions which in the end are of great assistance in preventing goods going astray.

Establishes Truck Service

FALL RIVER, Mass., Aug. 27.—A truck line operating on a daily schedule between this city and Boston and New Bedford, Mass., Providence and Pawtucket, R. I., Worcester, Mass., and Putnam, Conn., has been established by the Keogh Storage Co. Nineteen 5-ton trucks are maintained by the Keogh people on these routes, principally carrying cotton from the mills to the finishing plants or warehouses. Various other commodities, such as fruit, eggs, butter, cheese, meats and even machinery are being handled in large quantities by the vehicles.

The rate charged is \$1 per mile per truck load, including the picking up of the goods at the mill platform and unloading them at the finishing plants or at destination. An average of 50 tons is handled per day by this company. The manufacturers in this section are shipping a greater portion of their goods by motor truck than by rail because of the fact that the service is quicker, more reliable and the cost is less in most cases than the freight rate plus the cartage charges at either end.

Nebraska Transfermen

Operate Under Fixed Truck-Rates

OTHER STATES LIKELY TO FOLLOW

Charge Is $1\frac{1}{2}$ Cents Per 100 Lb. Per Mile Plus a Handling Charge of 15 Cents

MOTOR transportation rates for the hauling of goods between points outside of the city limits have been established by the Nebraska State Railway Commission. The rates which are based on the hundredweight, seem fair considering those charged by the transfermen and truck owners in other sections. The rates are based upon a charge of $1\frac{1}{2}$ cents per mile per 100 lb., plus a fixed charge of 15 cents per 100 lb., this charge including both the handling at the point of receipt and the distribution of the goods at their destination. The goods are classified, the same as is done by the railroads, the rate for first class goods per 100 lb. is $16\frac{1}{2}$ cents per mile, 30 cents for 10 miles and \$1.65 per 100 miles.

The rates apply only to transfermen and truck owners that transport freight for hire upon the public highways between points located in the eastern portion of the State of Nebraska, as exactly outlined later in the article. Following the method of the railroad classification, goods which might be hauled by trucks are classified under four different heads and designated as first-, second-, third- and fourth-class. The second-class matter is to be carried at 85 per cent of the first class rates; third-class at 70 per cent of the first-class rate, and fourth-class goods at 60 per cent of the first-class rate.

2-Ton Truck Generally Used in Nebraska

The rates per 100 pounds were determined upon the basis of using a 2-ton truck which is the size most generally used in the State of Nebraska due to the fact that the present roads and their condition during certain portions of the year will not permit of the uninterrupted use of 5-ton trucks such as are most usually employed for intercity traffic over the more improved highways in the East.

In comparing the rates with others in force with $3\frac{1}{2}$ - to 5-ton trucks in other sections of the country, the basic rate of $1\frac{1}{2}$ cents per 100 pounds per mile seems fair and should enable transfermen and other motor truck owners engaged in overland haulage work to earn a fair profit on their investment provided their work is carried out along approved business methods. For example, the rate per 100 pounds between New York and Philadelphia, a distance of 104 miles, varies between 90 cents and \$1, which is equivalent to about 1 cent a mile per 100 pounds, as compared with the $1\frac{1}{2}$ cent basic charge as determined by the Nebraska commission.

Before assuming that the Nebraska rate is much

higher than that between New York and Philadelphia, it must be borne in mind that, other things being equal, it is more economical to haul on a 5-ton truck than on a 2-ton truck, since the operating and fixed charges of a 5-tonner are not two and one-half times that of a 2-ton truck. Again, it costs more to haul goods in Nebraska than it does along the Atlantic seaboard, because as a general rule, the roads are much more highly developed in the eastern territory than they are in Nebraska.

\$165 for a 5-Ton Load

At the Nebraska rate the total amount which could be collected for a full 5-ton load would be \$165, as compared with the \$90 or \$100 which is collected at the existing rate by many transfermen in the East.

The rates in Nebraska went into effect on July 1, 1919. The fact that Nebraska has determined and established fixed rates is of the greatest importance to transfermen the country over, for it is entirely likely that if the Nebraska rates stabilize the industry of hauling goods overland by motor truck and prevent exorbitant charges as well as price cutting, other states will follow suit.

Further than this, the Nebraska State Railway Commission is also empowered to regulate all concerns or individuals who engage in the handling goods for hire in certain parts of the state. Each transferman or truck carrier who handles goods for hire must report annually to the Commission during January of each year, the business done during the preceding year. The first report must cover the period during the last 6 months of the year 1919 during which the carrier was in business.

Transfermen Under Regulations

This regulation is really more important than appears on the surface, for it is required that every transferman carrying goods for hire shall keep a record of his business to show the following items:

- 1—Dates of all truck movements, and capacity of truck used.
- 2—Distances traversed by each truck daily, a—Under load; b—Empty.
- 3—Condition of roads traversed daily as to passability, whether good, medium or bad.
- 4—Miles of, a—Paved roads; b—Unpaved roads, traversed by each truck daily.
- 5—Description, weight, length of haul, and charge of each shipment.
- 6—Names and addresses of consignor and consignee of each shipment.
- 7—Condition of each shipment on delivery, if in bad order.

Every such truck operated must also keep books of account of the business according to double entry system in such manner as to show separately the following items:

- 1—Cost of property:
 - a—Trucks.
 - b—Real estate and buildings.
 - c—Shop equipment.
 - d—Office furniture and fixtures.
 - e—Stationery and supplies.
 - f—All other property.
- 2—Cost of Operation:
 - a—Gasoline and oil.
 - b—Drivers' wages.
 - c—Drivers' traveling expenses.
 - d—Freight house men's wages.
 - e—Other operating expenses.
- 3—Cost of Maintenance:
 - a—Tire repairs and renewals.
 - b—Repair to trucks.
 1. Labor.
 2. Material.
 - c—Truck renewals.
 - d—Repair and renewals to buildings.
 - e—Repairs and renewals to shop equipments.
- 4—General Costs:
 - a—Salaries of manager and office force.
 - b—Rent, heat, light, water, telephone and telegraph.
 - c—Replenishing stationery supplies.
 - d—Insurance.
 - e—Loss and damage to freight.
 - f—Taxes.
 - g—Incidentals.
- 5—Cash on hand.
- 6—Capital invested.
- 7—Operating revenues.
- 8—All other revenues.
- 9—Revenues set aside to reserve for truck depreciation on basis of 4 cents per capacity ton mile.
- 10—Dividends declared and paid.
- 11—Surplus revenues.

All accounts must be balanced monthly and a trial balance entered of record.

There is one good feature of the commission's ruling in that the rates as established by it are subject to review and change at any time upon complaint of any truck owner or organizations deeming themselves aggrieved.

While the determination of the costs upon which the rates were based as shown in General Order No. 46 of the Nebraska State Railway Commission on Highways

Trucking Rates were not conclusive and were based on the erroneous assumption that the ton-mileage of truck work is determined by multiplying the mileage covered during any period by the tonnage covered during that same period, the resultant rates as shown on this page seemed fair.

The rates apply to the use of trucks transporting freight for hire upon the public highway between points located in the State of Nebraska easterly of a line beginning at the intersection of the westerly line of Webster County with the Nebraska-Kansas boundary; thence north on and along the westerly lines of Webster, Adams, Hall and Howard Counties, to the northwest corner of Howard County; thence easterly along the north line of Howard County and thence north on and along the westerly lines of Nance, Boone, Antelope and Knox Counties, to the Nebraska-South Dakota boundary, the points not being located within the same city or village. This territory includes practically all of the area in which trucks are now in use. It includes the Nebraska cities of Omaha, Lincoln, South Omaha, Grand Island, Hastings, Fremont and Beatrice.

Distances applicable shall be those of the commonly traveled routes between the terminals by way of intermediate stations, if any. Shipments originating or terminating between stations shall take the distance applying to the nearest stations.

There are certain exceptions to the rates including household goods, with a rate double that of the second-class rate, when the declared valuation is not to exceed \$10 per 100 pounds. It is three times the second-class rate where the declared valuation exceeds \$10 per 100 pounds.

All articles will be charged at actual gross weight and inserted in the bills of lading except that when an estimated weight is given in a classification, such estimated weight will apply unless the weight is greater.

Nebraska Trucking Rates Per 100 Lbs. Between Points Not Within the Same City or Village

Distance Miles	First Class 15 Cents Plus 1 1/2 Cents Per Mile Rate	Second Class 85% of First Class Rate	Third Class 70% of First Class Rate	Fourth Class 60% of First Class Rate	Distance Miles	First Class 15 Cents Plus 1 1/2 Cents Per Mile Rate	Second Class 85% of First Class Rate	Third Class 70% of First Class Rate	Fourth Class 60% of First Class Rate
1	\$.165	\$.1402	\$.1155	\$.099	39	.735	.6247	.5145	.441
2	.180	.1530	.1260	.108	40	.750	.6375	.5250	.450
3	.195	.1657	.1365	.117	41	.765	.6502	.5355	.459
4	.210	.1785	.1470	.126	42	.780	.6630	.5460	.468
5	.225	.1912	.1575	.135	43	.795	.6757	.5565	.477
6	.240	.2040	.1680	.144	44	.810	.6885	.5670	.486
7	.255	.2167	.1785	.153	45	.825	.7012	.5775	.495
8	.270	.2295	.1890	.162	46	.840	.7140	.5880	.504
9	.285	.2422	.1995	.171	47	.855	.7267	.5985	.513
10	.300	.2550	.2100	.180	48	.870	.7395	.6090	.522
11	.315	.2677	.2205	.189	49	.885	.7522	.6195	.531
12	.330	.2805	.2310	.198	50	.900	.7650	.6300	.540
13	.345	.2932	.2415	.207	51	.915	.7777	.6405	.549
14	.360	.3060	.2520	.216	52	.930	.7905	.6510	.558
15	.375	.3187	.2625	.225	53	.945	.8032	.6615	.567
16	.390	.3315	.2730	.234	54	.960	.8160	.6720	.576
17	.405	.3442	.2835	.243	55	.975	.8287	.6825	.585
18	.420	.3570	.2940	.252	56	.990	.8415	.6930	.594
19	.435	.3697	.3045	.261	57	1.005	.8542	.7035	.603
20	.450	.3825	.3150	.270	58	1.020	.8679	.7140	.612
21	.465	.3952	.3255	.279	59	1.035	.8797	.7245	.621
22	.480	.4080	.3360	.288	60	1.050	.8925	.7350	.630
23	.495	.4207	.3465	.297	61	1.065	.9052	.7455	.639
24	.510	.4335	.3570	.306	62	1.080	.9180	.7560	.648
25	.525	.4462	.3675	.315	63	1.095	.9307	.7665	.657
26	.540	.4590	.3780	.324	64	1.110	.9435	.7770	.666
27	.555	.4717	.3885	.333	65	1.125	.9562	.7875	.675
28	.570	.4845	.3990	.342	66	1.140	.9690	.7980	.684
29	.585	.4972	.4095	.351	67	1.155	.9817	.8085	.693
30	.600	.5100	.4200	.360	68	1.170	.9945	.8190	.702
31	.615	.5227	.4305	.369	69	1.185	1.0072	.8295	.711
32	.630	.5355	.4410	.378	70	1.200	1.0200	.8400	.720
33	.645	.5482	.4515	.387	71	1.215	1.0327	.8505	.729
34	.660	.5610	.4620	.396	72	1.230	1.0455	.8610	.738
35	.675	.5737	.4725	.405	73	1.245	1.0582	.8715	.747
36	.690	.5865	.4830	.414	74	1.260	1.0710	.8820	.756
37	.705	.5992	.4935	.423	75	1.275	1.0837	.8925	.765
38	.720	.6120	.5040	.432					



Members and guests photographed at the second annual meeting of the Pennsylvania Furniture Warehousemen's and Van Owners' Association, held at Torresdale, Pa., Aug. 9

Pennsylvania Warehousemen Approve National Organization

Handling Peak Load Efficiently and Collective Advertising Major Topics Discussed at Household Goods Meeting

TORRESDALE, Pa., August 9.—The endorsement of the plan that there be created a National Furniture Warehousemen's Association, composed of all regional and state organizations, as suggested by the Illinois Furniture Warehousemen's Association, and that a committee of three be appointed to confer with other committees in drawing up plans and by-laws, was the result of the action taken at the convention of the Pennsylvania Furniture Warehousemen's and Van Owners' Association held at Torresdale, Pa., August 9.

Other subjects discussed by the majority of those present, and which were of major importance to the household goods industry, were what course should be taken to handle efficiently and conveniently, both to the customer and warehouseman, the large amount of business which is expected during this fall and collective advertising, a plan which is now being tried out by the association.

Endorse Creation of National Organization

The first major topic discussed—that of a national association—was presented by the secretary, who read a letter from the Illinois Furniture Warehousemen's Association, asking that a committee of at least three be appointed to attend a conference made up of similar representatives from other warehousemen's associations. After much discussion the association endorsed the idea by a unanimous vote, the appointing of the committee and the appropriation to defray the expenses being left in the hands of the Executive Committee.

A canvass of the members indicated that they believed this season will be the busiest in many years and that there would not be enough moving equipment to handle the business satisfactorily. As a result of the discussion, the following resolution was passed:

"Whereas we have reason to believe that due to the housing situation, the congestion in the business of

storing, moving, packing and shipping household goods this fall will be greater than ever before during this season, and

"Whereas such congestion may result in delay and inconvenience to that portion of the public desiring to move during September and October,

Resolved, That we recommend to the public and urge that when possible removals shall be effected before September first or postponed until after November first."

Members Advertise Collectively

It was further decided to insert this resolution in the collective advertising which is being run under the auspices of the association. It was decided also to run a series of advertisements urging the public to move before or after the fall rush. It was believed that by this publicity the warehousemen could divert much of the business from the rush to the dull season, with a profit to both the warehousemen and the public.

It was brought out that a committee of three had been studying means to achieve the best possible results from collective advertising.

At the present time between nineteen and twenty-one members located in Philadelphia are advertising in the daily newspapers under this collective method. The advertisement consists of 200 lines run in two columns, or 100 lines in each column. The cost is 45 cents per line, or a total of \$90 an insertion. This amount is equally divided among the warehousemen whose names, addresses and telephone numbers are listed. The rest of the space is given over to general propaganda. Thus the members have an advertisement in a daily newspaper with a circulation of nearly 500,000 for an average of \$4.50 per insertion.

The convention, which was the second held by the association, was attended by fifty-eight members and

(Continued on page 33)

■ Editor's Page ■

Distributing vs. Freight Costs

TO the furniture industry of southern Michigan the name Jones means something that is tangible in association with distribution of products—it is synonymous with reduced costs in moving forward to market the goods which this industry turns out. Jones plus knowledge of freight rates equals economy just as arbitrarily as one plus one equals two.

The American manufacturing world would benefit through the possession of more Joneses. The country's annual freight bill would be smaller. One of the greatest problems with which shippers are confronted—how to minimize distribution expenses—would become something more simple.

Jones—Frederick E. Jones of Grand Rapids—studies the spread in freight rates, and what he learns he applies, with economic results, to the merchandising by rail of the commodity manufactured by his employers, who comprise about forty Grand Rapids furniture makers. If each of these forty manufacturers has a buyer in New York who purchases a comparatively small amount of furniture weekly, the situation is put up to Jones. Consequently these forty shipments do not go East in individual lots at less than carload freight rates. Jones

assembles them in one car and they move in the aggregate at the full carload rate. This represents a saving as high as 60 per cent. in some instances.

It would repay every industry to hire a Jones.

There is this thought, also. If the shoemaker of Boston is going to compete in the St. Louis territory with the manufacturer already on the ground with a factory, this Boston shoemaker's expenses of distribution must be cut to the minimum. The higher his cost of marketing, the higher will be the retail price of his shoes when they reach St. Louis. By co-operating and hiring a Jones, obviously the Boston shoemakers can cut down freight costs by sending goods westward in consolidated carload lots; these reduced distribution costs would be reflected proportionately in the ultimate retail prices in the St. Louis territory.

What the Grand Rapids furniture men are doing is not a startling accomplishment in itself. It is nothing really new. But in this period of business readjustment, it is important; the value of it will become increasingly significant if freight rates continue to advance.

Know Your Rates

HOW many transfermen and truck owners operating trucks for hire can prepare a detailed report of their business activities carried on for the past 6 months?

How many of these truck operators have any conception of the various items entering into the cost of operating trucks?

If a survey of the industry were made, it would be found that few would have any more than a general knowledge of what their costs or profits were for hauling a 5-ton load a specified distance, charging off overhead.

The Nebraska State Railroad Commission has established trucking rates for transfermen and truck owners engaged in handling goods for hire. It has been also empowered to regulate such operators. These regula-

tions require that an operator make a detailed report of all business transactions, costs and profits annually.

Undoubtedly other like bodies are watching with interest the Nebraska plan, and if it proves successful, may adopt it.

If the plan is adopted in other states, you, the transferman, will be called upon to show why certain rates should be charged. So why not start now and install a modern system of keeping a detailed report of your business—the cost and profits per unit? If this is done in the proper way, you will be able to show why a certain rate should be charged. In addition, you will also be able to show why certain regulations should or should not be adopted.

Tell the People Your Business

Make That Business Spell Efficient Service

Kansas City Warehouseman's Successful Adoption of These Two Policies Leads to Trade Expansion

PUBLICITY. Efficient service. These are the chief assets to which L. Leritz & Son, of Kansas City, Mo., attribute their success and expansion in the storage and moving business.

By placing emphasis on publicity and efficient service in its business dealings with the public, the Leritz firm has within less than four years attracted so much new trade that it has had to transform its five-story buildings into a structure containing seven floors. This improvement involved an expenditure of \$20,000, in addition to the original cost, \$100,000 in 1915.

This physical growth represents a 40 per cent. increase in floor space—an expansion from 50,000 square feet of floor space in October, 1915, to 70,000 square feet at the present time.

It has been, and is to-day, the policy of Louis Leritz to keep the name of his firm constantly before the public. In doing this he has utilized three mediums: first, advertising in the newspapers; second, full-page advertisements on the inside of the front covers of Kansas City's telephone books; third, extensive distribution of a booklet containing Leritz efficient service propaganda.

The Kansas City firm had efficient service in mind when it designed and constructed its warehouse 4 years ago. Intelligent methods of handling, position of elevator, accessible driveways, type of machinery, installation of lockers, garage facilities for the truck fleet, introduction of charts and other office conveniences, the sprinkling system—all these were given serious attention. To-day the Leritz company in its publicity literature points to its low rate of insurance—22 cents on the \$100 per year.

When the Leritz warehouse was built the easiest methods of handling goods to and from the trucks was given careful study. The driveway is inside the build-

ing and runs back to the loading platform. The height of this platform is the same as the height of the truck bed from the driveway. From the truck the goods may be removed to the platform, which leads to the elevator.

The elevator is 8 by 18 feet square, with a 6,000 pound capacity, and is enclosed. It has two stops—floor level and platform level. Another door opens from the elevator onto the driveway, facilitating the loading and unloading of goods between elevator and driveway.

Victrolas, pianos and rugs are stored on the first floor. A mezzanine floor is being planned for the piano room. This extra deck will double the present space used for the storage of pianos.

A \$400 suction machine was installed, for the cleaning of rugs and mattresses before they are stored. The vacuum room occupies floor space 18 by 25 feet square. This machine can clean 300 yards of carpet in one day. Ten cents a yard is charged for the cleaning. The cost of the motive power is 5 cents a yard, and the man who operates the machine is paid \$3.50 a day.

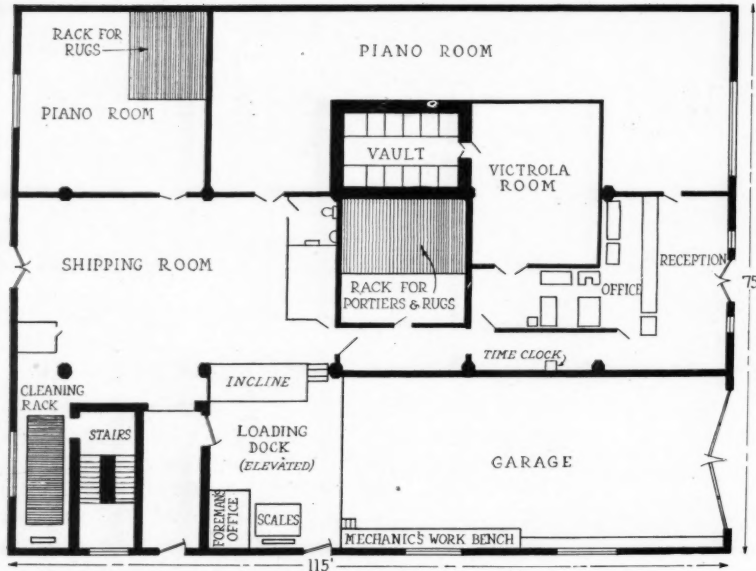
An innovation is the wire locker room system. These

rooms, 300 in number, are located on the second and third floors, 150 on each floor. The space in the lockers ranges from 300 to 1,200 cubic feet. Each locker is built of reinforced wire cut in one piece from ceiling to floor, and is sealed with a car seal. These seals are made especially for the Leritz people and bear their name.

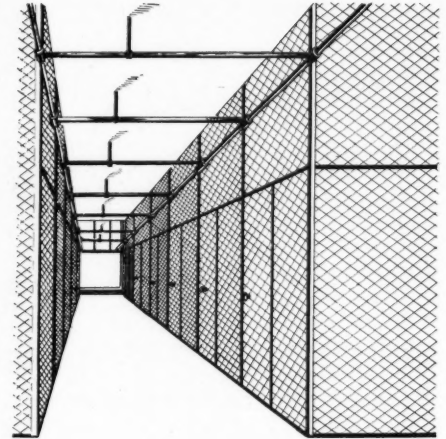
While the cost of installing the wire type of lockers was 50 per cent., more than the cost of the old type cement locker system, advantage is derived from free ventilation. This improvement prevents accumulation of moisture and eliminates danger of vermin in the lockers. Moreover, each piece of furniture is wrapped in oiled paper before it is stored, and thus dust cannot reach



Household goods plant of L. Leritz & Son, Kansas City, Mo. Upper two floors were added, at cost of \$20,000 to meet needs of business expansion



General layout of first floor of the warehouse. Note the large amount of space devoted to the shipping room, loading dock, piano and victrola rooms. The company's trucks are also housed on this floor



An innovation at the warehouse is the locker room system. Three hundred wire mesh lockers, 150 on each of the two new floors, have been installed at a cost of \$4,000. The space in the lockers ranges from 300 to 1200 cu. ft. This improvement prevents accumulation of moisture and eliminates danger of vermin in the lockers

the furniture through the open lockers. The cost of storage in the private rooms is $1\frac{1}{4}$ cents a cubic foot—or $\frac{1}{4}$ cent more than is charged for open storage.

The four upper floors are devoted to open storage. At present, automobiles are stored on the top floor, but these are gradually being moved out to make way for household goods.

A material and a packing room are located in the basement. An electric swing saw was recently installed, at a cost of \$250, and this is so arranged that the men can cut lumber in desired lengths without resorting to pencil and rule each time.

Trucks Housed at Warehouse

Storage tanks for oil and gasoline are kept in the garage. A mechanic is employed to keep the trucks in first-class order. Seven trucks, ranging from the Ford to the 3-ton truck, comprise the company's fleet.

To aid the office force to obtain the most efficient results, the chart system of recording private rooms has been in use since the business was established.



Here is shown the vacuum cleaning outfit of Leritz & Son. The installation of the machine cost \$400, and it is used for cleaning rugs, portieres, mattresses, etc.

A vacuum sprinkling system is used. It is so arranged that an alarm is given in the office to warn of leaks, thus eliminating danger of damage to household goods.

Eastern Project Combines Port, Terminal and Warehouse Facilities

(Continued from page 11)

for a large steamer to berth at east at all times.

Each of the three piers is to be connected with the railroad siding within the near future. When this connection is made it will make necessary only a single handling of the goods from steamship to freight car or vice versa.

The piers are leased to steamship companies, A being occupied by the Independent Steamship Co., B by the Nippon, Yesen Kaisa, a Japanese line, and C to the Oriental Navigation Co. The goods handled by these companies are principally to and from France, South America, Japan, India and various Pacific ports.

Use Piers for Stowing Goods

All of these steamship companies utilize the piers for storage purposes in addition to docking their vessels, loading and unloading.

A second floor has been constructed at the front of each of the piers—that is, the end facing inland, and here each of these steamship companies maintains a shipping office.

The Pouch people operate also a two-story brick office located in the center of the plant. Some conception of the activities carried on by the Pouch people may be had when it is stated that between 500 and 2,000 men are employed at the plant—this number, of course, being governed to a certain extent by the number of ships at the piers.

FROM THE LEGAL VIEWPOINT

Our Own New Legal Service Bureau

By George F. Kaiser

Not Responsible for Stolen Goods Unless Negligence Is Shown

IN a recent interesting case involving goods stolen from a warehouse it was decided that the owner of the goods would have to prove negligence on the part of the warehouseman where he showed that the goods had been stolen, before he could be held responsible.

The customer had stored a trunk containing silverware and clothing and had paid one month's storage. He then left the city. On returning 11 months later he called at the warehouse, tendered the past due storage charges and was advised that his trunk had been broken open and the contents had been stolen.

The customer then sued the warehouseman for the value of the goods. The latter testified that the trunk had been stored in a cellar and that several months before a number of trunks had been broken into and their contents had been stolen. He admitted that he employed no night watchmen and that his premises were not equipped with a burglar alarm system.

The court decided that when the owner showed that he had delivered the goods to the warehouseman and the latter had failed to return them the burden of proof shifted to the warehouseman. When the latter showed, however, that the goods had been stolen, the burden of proof again shifted, and it was then necessary for the owner to show that the goods were stolen because of some negligence on the part of the warehouseman before the latter could be held responsible. *Wilson vs. Christal*, 176 N.Y.S. 341.

Describing Property on a Lien Sale

Editor, *TRANSFER & STORAGE*: How fully must property be described on a lien sale? Are there any cases which go into this. T. S., Cincinnati, Ohio.

Reply: The only case that I have been able to find is the Minnesota case

of *Weth vs. Downs*, 93 Minn., 457, 101 N. W. 966, wherein it was held that a violin and carpenter's tools were properly described as household goods on a lien sale.

Cartage Is Responsible for Goods on Truck

THAT a public truckman is responsible for the loss of goods where his driver leaves the truck on which they are being carried unattended, is the decision in a recent New York case. In this case a driver employed by a public truckman carried goods to a railroad freight depot, left the truck on a line of waiting trucks, went into the station and remained four or five

minutes. While he was away the truck and its contents disappeared. Then owner of the property sued the truckman, claiming that the property was lost through his negligence.

In the contract between the owner and the truckman was a clause which read, "In the care of the goods of the shipper the responsibility of the contractor and his servants and agents shall be that of the carrier or bailee for hire."

The court in passing on the case decided that the truckman was a common carrier, and thus an insurer against all losses except those arising from the active guard, the public enemy, public authority, or the shipper, or losses caused by the inherent nature of the goods themselves.

It held, therefore, that the failure to guard the truck was sufficient to make the truckman liable even if he had been a mere bailee for hire. *Sullivan vs. Williams*, 176 N. Y. S. 710.

Charges Continue on Goods Under Warehouse Lien

Editor, *TRANSFER & STORAGE*: Where goods are stored under a contract to deliver and charges are paid and they are held under the Warehouseman's lien, do the charges continue?

Reply: Yes, the charges continue. It was held in the New York case of *Reidenbach vs. Fuch*, 88 N. Y. 366.

Bank's Lien on Non-negotiable Warehouse Receipt

A CASE holding that a bank had a lien upon a non-negotiable warehouse receipt sufficient to enable it to move to vacate a warrant of attachment was just recently decided in the New York Appellate Division.

On July 13, 1917, the Phoenix Bank of Lexington, Kentucky, made a loan of \$6,500 to the defendant, the Kelly Storage & Distributing Company. As security for this loan the Kelly company transferred to the bank a non-negotiable receipt of a warehouseman in the City of New York, covering the merchandise in question. The bank

Legal Service

BECAUSE of the numerous legal questions brought to the attention of the editors during the past few months, *TRANSFER & STORAGE* in the future will carry a department entitled "From the Legal Viewpoint."

There may be many legal matters in the operating of your business which you desire to be enlightened upon. If so why not ask the legal editor of *TRANSFER & STORAGE* for a ruling?

George F. Kaiser is a practicing lawyer who makes a special study of warehousing and transfer affairs. Service given in these pages is free. *TRANSFER & STORAGE* cannot agree to answer all questions, but will do so as far as is possible.

gave no notice of the transfer of this warehouse receipt to the warehouse before Aug. 10, 1918, at which time the plaintiff, claiming to have a cause of action against the defendant for some \$2,000, obtained and levied a warrant of attachment upon the same goods.

Under section 115 of the Personal Property Law, as well as under section 126 of the General Business Law, it is provided that a person to whom such a document has been transferred may notify the warehouse of its ownership of such receipt and acquire the direct obligation of the warehouse to hold possession of the goods for the transferee, and it is further provided: "Prior to the notification of such bailee by the transferor or transferee to the goods the right to acquire the

obligation of such bailee may be defeated by the levy of an attachment or execution upon the goods by a creditor of the transferor." The same provision occurs in both sections of the statute noted. Subsequent to the levy of the attachment the bank gave notice to the warehouse of its assignment.

The bank then made a motion to vacate the attachment. The court held that it should be vacated, upon proper cause shown, as the bank, under the New York law, had interest enough in the property to give it a proper standing to object to insufficiency of the papers upon which it was granted. *California Packing Corporation vs. Phoenix & Third National Bank of Lexington, Kentucky* (App. Div. N. Y., May, 1919).

prudence universally enacted in all the lawful relations of life, except where, from other considerations a higher degree of caution is enjoined. *Sullivan & Sanford Lumber Co. vs. Watson*, 135 S. W. (Texas) 635.

Procedure to Become Bonded Warehouse

Editor TRANSFER & STORAGE: Can you kindly advise what procedure is necessary for us to take to become a bonded warehouse?

WILBER TRANSFER CO., Montana.

Reply: There are four classes of bonded warehouses—United States Custom, the Federal International Revenue, Special Bond known as No. 2, and the State Bonded Warehouse. The United States Bonded Warehouse is for exports, the Federal International Revenue for distilled goods and tobacco, the Special Bond No. 2 for manufactured brandies, and the State Bond is a warehouse bonded to the State, usually for the amount of \$50,000, for the protection of the commonwealth.

You can make application to the Collector of the Port for a license to operate a United States Custom Bonded Plant, or the Federal International Bond, or the Special Bond No. 2. All seaboard cities of any size have a collector of the port, but in your case you will have to get in touch with the collector having charge of your section. The collectors in charge of inland territory have whole sections under their supervision, in some instances taking charge of two and three States.

After you have filed application with the collector in charge of your section your warehouse will be surveyed and recommendations made as to the space which will be allotted for this particular class of storage.

The rule for storing such goods is that the space can only have one entrance or one exit and no windows. After the necessary changes have been made the Government will put a storekeeper in charge of that particular room. This storekeeper retains the keys of the room, and sees that nothing is removed unless the duty has been paid on the goods.

The Government storekeeper's salary is paid by the warehouseman. This salary ranges between \$150 and \$175 per month. There are few of these bonded warehouses located inland because of the limited amount of business they are able to obtain.

If you desire to operate a State Bonded Warehouse you can do so by filing application with the Secretary of your State.

The Business of Being a Warehouseman

THE business of being a warehouseman and doing business in a properly legal way is not the simple affair it might seem to be to those not versed in the law as applied to warehousemen.

In discussing this matter it might be well to start in an orderly manner by setting out the legal definitions of the words "warehouseman," "warehouse," and "public warehouse." A "warehouseman" has been legally defined to be a person who receives goods and merchandise to be stored in his warehouse for hire. A "warehouse" has been judiciously construed to be a place where goods are received in store for profit. A "public warehouse," according to the courts, is a term sometimes applied to warehouses generally to distinguish them from places in which goods are kept by the owners, or for certain other persons, but not for the general public.

While under some decisions it is not necessary for a person to hold himself out to the public as a warehouseman in order to constitute himself as such, the general rule is that a person merely keeping his own goods, or a person gratuitously keeping the goods of another, one keeping goods with the option of purchase or return, or a person merely keeping possession of goods for sale, is not a warehouseman.

In one case a man leased a room to another, who received goods on storage. He was held to be a warehouseman when it appeared that he locked and unlocked the door each day and otherwise undertook to watch the goods.

When a person is to be regarded as a warehouseman, or as a common carrier, there is another delicate proposition at times. It is generally under-

stood that when the main purpose of a contract is storage the mere fact that the goods are to be transported to the warehouse or removed from it and delivered to some other place it does affect the person's status as a warehouseman and he does not thereby become a common carrier.

Proprietors of safe deposit vaults and the like are also regarded as warehousemen and not as banks, bankers or banking corporations.

Being a business of a public character, warehousemen are subject to municipal, state and national control, under the exercise of the so-called "police power." Licenses and license taxes naturally follow such control, and in the all but exceptional cases are properly required. Such taxes, of course, are upon the particular kind of business which is being done and not upon the building or warehouse itself.

The conduct of the business, whether run individually, as a partnership, or as a corporation, is, of course, governed by statute or ordinance and in the case of a corporation also by the charter or certificate of incorporation.

(To be continued.)

Terms Defined by the Courts

"INEVITABLE Accident"; an accident is inevitable if the person in connection with whom it occurs neither has nor is legally bound to have, sufficient power to avoid it or to prevent its injuring another, and in such a case the essential element of legal duty being wanting, the person cannot be held negligent. *Roanoke Ry. & Electric Co. vs. Eterrett*, 62 S. E. (Va.) 385.

"Ordinary care," is that measure of

"An Expensive Luxury—The Horse"

An Exposé of Propaganda Against the Motor Truck

IN this era of progress it is surprising that serious attention is given anywhere to propaganda intended to convince the distributor, warehouse owner and transferman that the horse and wagon is of greater value to his business than the motor truck. Evidences of this propaganda become more sporadic as the years go on, but they still persist from time to time, and it is the opinion of TRANSFER & STORAGE that each time they crop up they should be attacked and cut down as industrial weeds. The scythe of intelligence should be applied without delay. This is not the day of weeds.

The weed in this particular instance is an article prepared by the Chicago superintendent of transportation for one of the big packing houses in that city. This specimen of propaganda, written for the purpose apparently of endeavoring to prove that the horse is mightier—and cheaper—than the motor truck, has been printed in two trade journals devoted to the horse; and has been widely distributed in booklet form by the Chicago Hay, Grain and Feed Association under the title: "An Expensive Luxury—the Motor Truck." In this booklet, however, certain phrases of the original text have been deleted so that the discriminating reader does not have before him the entire original article.

The Rejoinder

Calling attention to this situation, "Power Wagon" in its August issue reprints the original text and intersperses running comment which refutes many of the arguments, assertions and figures set forth by the Chicago superintendent of transportation. It should repay every distributor, warehouse owner and transferman operating vehicular equipment to obtain a copy of the enlightening reply made by "Power Wagon." The man who prefers the horse to the motor truck in conducting his business should find food for much thought.

The Chicago transportation superintendent declares that it costs his company "approximately twice as much per ton to make deliveries in the Chicago territory with trucks as with horse-drawn wagons." To this assertion, "Power Wagon" makes the comment that "unfortunately the author's figures do not bear out this statement" and goes on to take the original figures to task in a manner to prove that they are not convincing. Incidentally, "Power Wagon" makes the interesting and significant statement that there are now "nearly half a million motor trucks in service" and that more than 2,000,000 horses have been "consigned to the pastures and reduction vats," 17,000 of these animals being discarded in Chicago alone during the past 4 years.

The bases of comparison selected by the Chicago superintendent are shown by "Power Wagon" to be erroneous and in some instances "ridiculous." After

pointing out how figures have been juggled in favor of the horse, "Power Wagon" continues:

"Had the author been interested in making an impartial comparison he would not have based his argument on the cost per cwt., because the machines are used on long hauls and the horses on short trips. In a word, the two classes of service are not comparable. However, since he has undertaken a comparison we shall pursue it, but on the proper basis, namely, the ton-mile, which is the only unit that takes account of the loads hauled and the distance traversed.

The Truck Is Cheaper

"Using the corrected figures and the proper unit of comparison, it is found that the cost per ton-mile of delivering with 1-horse wagons is 59.2 cents, with 2-horse wagons 82.0 cents, and with 2-ton motor trucks 42.0. In other words, the cost of hauling by motor truck is 17.2 cents per ton-mile (or 29.0 per centum) less than by 1-horse wagons and 40.0 cents per ton-mile (or 47.8 per centum) less than by 2-horse wagons, despite the inefficient manner in which the machines are operated.

"Were the author successful in 'keeping down the costs and securing the utmost efficiency in deliveries,' at least to the extent of fully loading his machines, the cost per ton-mile would be only 26.0 cents, and this is based on his own erroneously high statement of motor truck cost.

"Had he wished, the author might have chosen another erroneous basis of comparison, the cost per mile; but this would likewise have demonstrated the superiority of the motor wagon and such was not his purpose. It would have shown a cost of 34.0 cents per mile for the 1-horse wagon, 90.6 cents for the 2-horse wagon, and 26.2 cents for the motor wagon."

"Figures Never Lie"

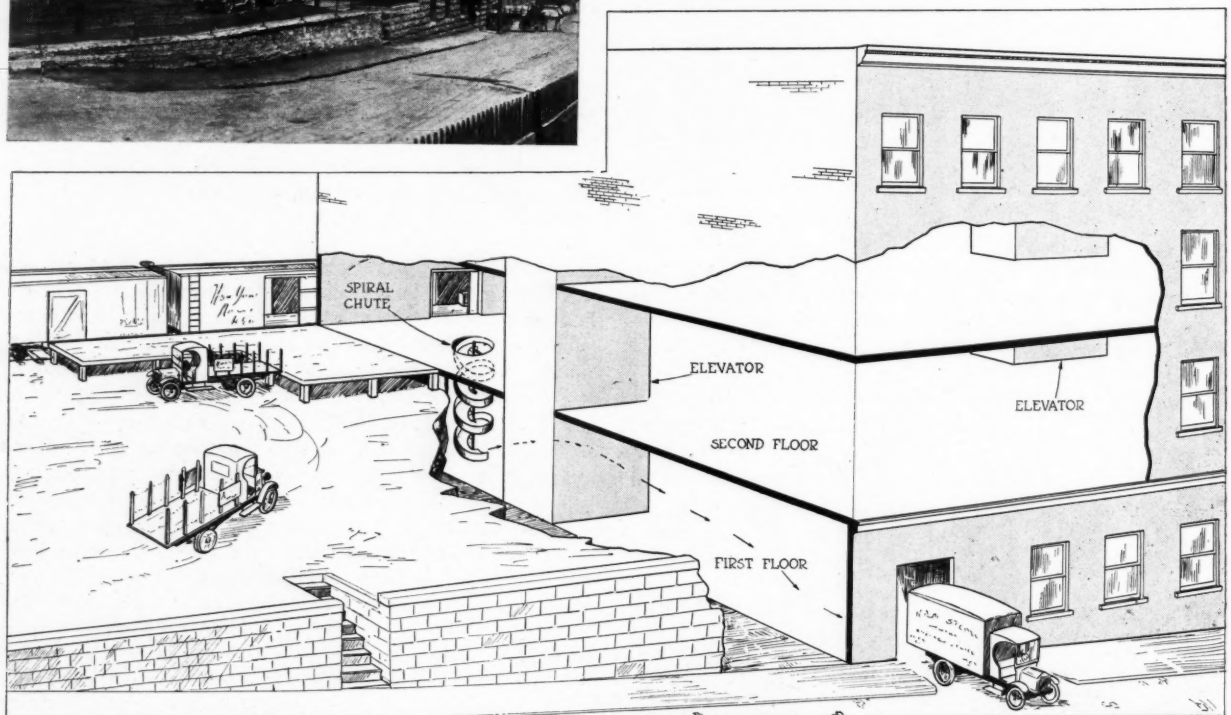
Figures which may be associated significantly with the foregoing have been issued by the Trailer Manufacturers Association of America indicative of the decline of horse-power in Chicago. According to this report, which is based on statistics compiled by Chicago's City Collector, the number of horse-drawn vehicles licensed decreased from 49,852 to 32,489, or 34¼ per cent, during the four fiscal years ended April 30; while the automobiles and motor trucks licensed increased from 43,129 to 77,332, or 77¾ per cent. A few years ago, according to this report, horse-drawn vehicles were in the majority in Chicago, but to-day there are more than 2½ times as many motor vehicles. The highest percentage of increase during the four years was in motor trucks, buses and coaches of more than 1-ton capacity—164 per cent. Motor delivery wagons increase 104.4 per cent in number.

Converting Mill Into Warehouse

Meets Demands of Manufacturers and Distributors



Syracuse Warehouseman Finds It Less Expensive to Remodel Mill Than to Construct New Plant



Upper left shows the old flour mill now being used for warehouse purposes. In the foreground is the building used by the King people as an office. The drawing shows the location of the elevators, spiral chute and loading platform and the course taken by goods moved between the second and first floors

BY remodeling an old flour mill for merchandise warehouse purposes at a cost of \$18,000 instead of constructing a new plant at the present-day prohibitive cost of labor and material, a Syracuse warehouse, the King Storage Warehouse, Inc., has been able to acquire additional warehouse facilities, such as sidings, receiving and delivering platforms, elevators, conveyors, etc., for handling goods efficiently and economically and thus keeping abreast of the increasing demand of the national distributor, jobber and retailer.

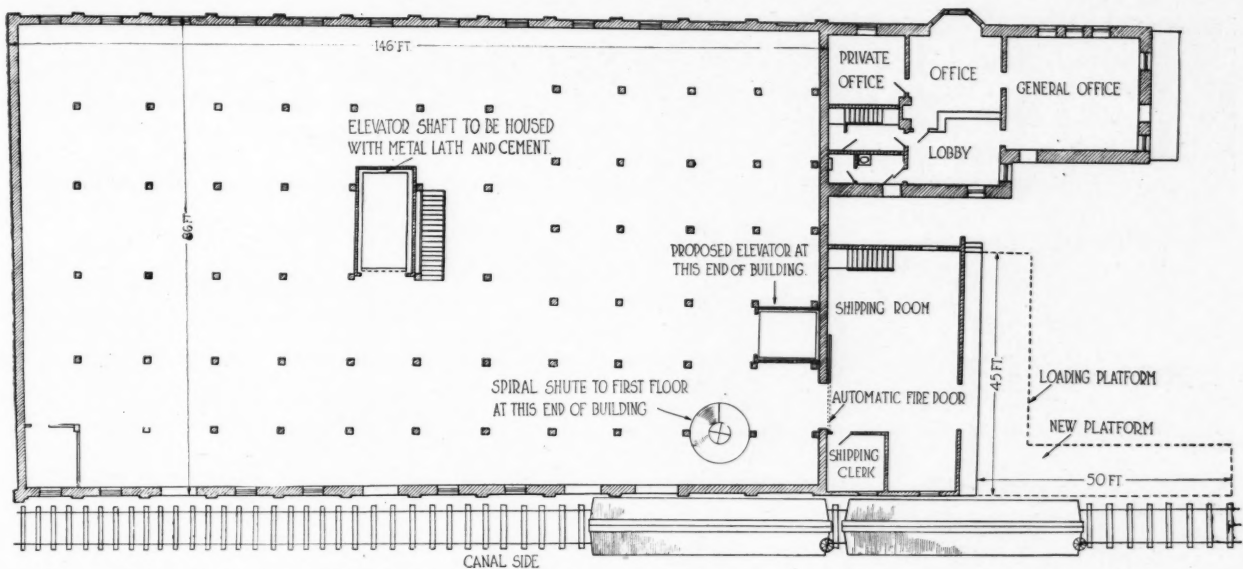
The manufacturers and jobbers in Syracuse and other sections were demanding warehouse space for the carrying of spot stocks and distributing and redistributing their merchandise, and it was necessary for the King people to secure this space or lose business, or in all probability compel the manufacturers, jobbers and retailers to construct or seek their own warehouses.

The King warehouse is located in the heart of the

wholesale and shipping district, the New York Central having its terminals directly across the street. This terminal handles approximately two-thirds of Syracuse's traffic, both in-bound and out-bound. The only other sites which were available for storage purpose were either too far out for general warehousing or were in the business section, an area far too expensive for such a business.

Old Mill Is Well Worth Remodeling

On the other hand, the company was fortunately able to purchase the old mill property at a fair price. It acquired enough vacant space to construct a large modern fireproof warehouse at some future time, should its activities require additional facilities, and at the same time continue to operate the business at the old mill while the new plant was being constructed. Thus it was found that on this site it would be better to re-



General layout of the second floor, which is on a level with the sidings. It shows the location of the new elevator, loading platform and shipping room and also the proposed elevator and spiral chute for handling package and other light weight goods between the second and first floors

construct the old mill, principally because of abnormal building conditions. Aside from the high cost of building, however, the plant as it stood was well worth the expenditure of remodeling.

Many Changes in Equipment Necessary

The mill when acquired by the King company embodied the necessary facilities for the manufacture of flour. At the eastern end of the building there was a huge grain garner which extended from the basement through the plant and 20 ft. above the roof. Over the top of the grain garner was a frame structure in which was housed an elevator leg for unloading grain from the boats on the Erie Canal, which ran along the northern side of the

property. This elevator was also used for loading and unloading freight cars on the private siding which ran horizontal with this side of the building. The floors throughout the plant were a network of chutes and conveyors which were used to convey grain from one section of the plant to another.

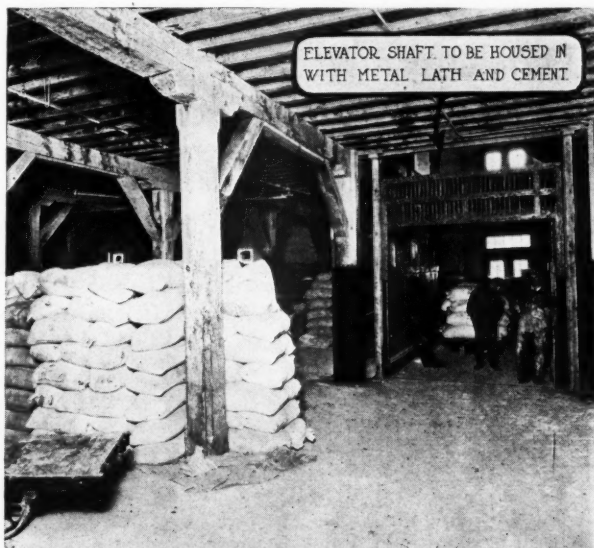
The grain garner, conveyors and chutes, of course, all had to be removed. The outside elevator, of frame construction, also had to be removed in order that the company could obtain the full advantage of a low insurance rate.

The plant is rectangular in shape, four stories and basement, of heavy mill construction, divided into two sections by fire walls. Each of these sections is 75 x 84 ft., making the total dimensions of the building 84 x 150 ft., thus giving a floor space of 63,000 sq. ft., including the basement, which is also used for storage purposes. At the northern site of the plant are the sidings, which are level with the second floor, while at the southern side are the wagon delivery doors. At one end of the plant there is a one-story brick building which is used for the office. Thus it has not been necessary to sacrifice any floor space at the warehouse for this purpose.

Increase Loading Platform Facilities

After all of the unnecessary structures and devices had been removed at the mill, the company constructed an additional loading platform, 50 ft. in length, running in front and at the side of the building, parallel with the sidings. This gave loading platform facilities practically the full length of the building.

The loading platform in front of the building is so arranged that it can be used for loading or unloading trucks when merchandise is to be handled direct from freight cars to vehicles or when there is an unusual number of vehicles waiting for merchandise at the delivery doors, thus causing congestion. The new loading platform was originally constructed for the handling of goods received over the sidings, so all that was necessary was the construction of a driveway from the street



In order to secure as low an insurance rate as possible, a sprinkler system is to be installed and the elevator shaft housed in with metal lath and cement



The plant is divided into two sections by a fire wall running through the center. The entrance from one section to the other will be protected with automatic fire doors as a further protection against fire

and it also was accessible for vehicles. The new platform as well as the old one is the same height as the floor of the freight car. With the additional loading platform, the warehouse can handle five cars at one time.

Following the construction of the platform and driveway, a large enclosed shipping room was erected at the second floor level. This room was constructed on the second floor because of the large amount of pool car business the company handles for redistribution in Syracuse and other sections nearby. Merchandise can therefore be unloaded from freight cars, sorted, retagged and reshipped with a minimum amount of labor.

To Install Labor Saving Machinery

A 3-ton gear-driven elevator, 8 x 17 ft., has been installed near the center of the building. Later it is planned to install a smaller one having a carrying capacity of from 1,500 or 2,000 lb. near the shipping room for handling small packages, etc. Both elevator shafts are to be encased in a fireproof structure. All interior doors will be of the automatic type—that is, they will be fireproof construction and equipped with a fuse which will melt after the temperature reaches a certain degree. The melting of this fuse will release the weight holding the door open and it will close automatically. The company intends to install a spiral chute for handling goods between the second and first floors, thereby reducing lost man-power to a minimum. Revolvers are also used throughout the plant wherever there is any heavy piling to be done. An automatic sprinkler system will be installed in the near future.

Flour is the principal commodity that is stowed on the first floor, which is on the street level. A section of this floor is divided off with bins, shelves and lettered and numbered spaces for the storage of unclaimed railroad freight, which makes up a large part of the company's business. The company's method of handling the latter class of business is as follows:

Each shipment when received is marked with the section number, the sections being numbered one way and

lettered the other, so that when the bill shows a certain shipment is stored (for instance, in section F-4) the packages in the shipment will also be marked accordingly, so that they can be readily identified. In addition to this, each shipment is given a lot number.

On the second floor, which is on the level with the sidings, are stored dried fruits, sugar, news-print paper, washing soda and other goods which move readily.

Store Bulky Light Goods on Upper Floors

The third and fourth floors are used principally for the storage of cereals and goods of a bulky light nature. These goods are not stored on these two floors because the floors will not carry a heavier load (as is the case with many warehouses), for all floors at this plant have a carrying capacity of 300 lb. per square foot, but owing to the fact that these goods, as a rule, can be piled higher and the upper floors at this plant have ceilings with a 16-ft. height. Therefore, a large quantity of light package goods can be stowed in a small space. Farm tractors also are stowed on the fourth floor. Although the greater portion of the company's implement business is handled at one of its other warehouses.

The basement is devoted to the storage of linseed oils, molasses and canned goods, commodities which require cool storage space.

Because of the superior location of the new plant, a greater portion of the company's distributing and forwarding business will be handled there. A large part of the company's activities in this branch of the business is receiving cars from Western points, breaking bulk and transferring from one car to another, thereby making solid cars of mixed goods taking the same class, or rating, for different central New York points. The company is the shipper for a large number of brokers of California dried fruits and canned goods, and also many large cereal manufacturers. The bulk of the company's shipping is to such points as Watertown, Rome, Utica, Binghamton, Auburn, Elmira, Schenectady, Albany and Troy.

Charge ¼ and ½ Cents for Marking

In distributing, the company bases its rate on the total number of packages in a car, with a minimum charge of \$10, which covers the delivery at car door of all goods for local jobbers. Out-of-town shipments are handled on a tonnage basis, the rate being 35 cents a ton per shipment for the transfer to ferry cars and way cars and a charge of 50 cents per ton per shipment for all shipments which have to be hauled by truck to the various freight stations. Both these rates are subject to a marking charge where the goods are not already marked. The rate for marking is from ¼ to ½ cent per package, depending on the nature of the goods.

A great many distributors load their Syracuse cars with a portion for storage, thus carrying a spot stock, which means that they can give the jobber, retailer and consumer more efficient service than they would be able to do otherwise. In the handling of this class of business, the company quotes a carload and less carload rate. In the basing of storage rates, the company is gradually putting into operation the method adopted by the Massachusetts and American Warehousemen's Association. Articles on this system of computing rates were published in the January, February and June issues of TRANSFER AND STORAGE.

Millions of Capital for New Warehouses

Investments of Reconstruction Period Being Made in All Sections of Country—Chain of Cotton Storage Plants for South—Buildings for Pacific Coast Fruits

THE crection of new warehouses is a vital feature of the development of rail, river, seaport and lakeport terminals to accommodate the expansion of the nation's business during the period of reconstruction. Virtually every industry is in some measure experiencing the process of reorganization after devoting its facilities and output to war needs to the extent demanded by the Government. This era of rehabilitation finds warehouses springing up in all sections of the country; the investments along this line are aggregating many millions of dollars. **TRANSFER & STORAGE** presents herewith a synopsis of this activity, brief reference being made only to some of the larger and more recent projects:

THE SOUTH

INTEREST in this section centers on the plans of the Union Warehouse Corporation, which is expected to be incorporated within a few months for the purpose of establishing a chain of standardized cotton warehouses at strategic points, the majority being located in southern cotton centers, with one or more accessible to the great cotton industrial business in New England. Thus far twenty-four localities for these storages have been selected in eleven States, and three others are to be chosen.

It is purposed so to organize this project that weight, grade and other fundamentals will be standardized in such a way that the staple in these buildings will be acceptable at all banks as security for loans. In other words, cotton warehousing will go hand in hand with cotton financing, and a discount company will be organized to handle cotton acceptance paper. In this manner many conveniences and economies may be worked out which do not exist to-day.

The consulting engineers of the Corporation have been at work on this project since last May. They have recommended the purchase or construction of cotton storage warehouses at the following points and with the following capacities, in

bales, subject to ultimate doubling in capacity:

Houston, Galveston or Texas City	100,000
Fort Worth	40,000
Dallas or Waco	100,000
Austin	10,000
Shreveport	20,000
Little Rock	30,000
East St. Louis, Ill.	30,000
Memphis	300,000
Greenville, Miss.	20,000
Birmingham, Ala.	20,000
Selma, Ala.	10,000
Montgomery	20,000
Mobile	40,000
Augusta	40,000
Macon	20,000
Dublin, Ga.	10,000
Savannah	100,000
Spartanburg, S. C.	10,000
Greenville, S. C.	10,000
Rock Hill, S. C.	10,000
Columbia, S. C.	20,000
Charleston	50,000
Charlotte	20,000
Raleigh	10,000
Greenboro, N. C.	20,000
Norfolk	40,000
Mansfield or Framingham, Mass.	100,000

Total initial capacity1,200,000

These warehouses will be established on the unit system, with capacity of 10,000 bales for each unit, and there will be ample room for expansion to meet future needs. Modern facilities and appliances for handling cotton in and out will be installed, and there will be machines for compressing, weighing, certifying, etc. Construction will be concrete and adequate fire-sprinkling protection will be afforded, with strict regard to underwriters' requirements so that low insurance rates may be obtained.

Methods of financing have not been definitely announced. The tentative plan, it is understood, calls for the issuing of both common and preferred shares, the common to have no par value, and the preferred shares to have a par value of \$100 each, the preferred to aggregate \$10,000,000. This tentative plan provides for an authorized issue of 6 per cent 50-year sinking fund, gold bonds amounting to \$20,000,000. The idea is to issue these bonds only against actual property purchased or plans constructed and at the rate of 60 per cent of the appraised value thereof.

The Macon Bonded Warehouse Co.,

of Macon, Ga., has petitioned the City Council for lease of additional land adjoining its property, and plans to double the present capacity of its plant at an expenditure of \$100,000 by constructing an additional unit to its warehouse. This and improvements of kindred character planned by other interests will add to Macon's importance as an inland cotton center.

Jacksonville's campaign to become recognized as the most important South Atlantic port is slowly maturing. Representatives of the manufacturers, Chamber of Commerce, United States Shipping Board and the Federal manager of railroads entering the city are holding consultations with a view to planning ambitious terminal improvements. Jacksonville has subscribed \$100,000 a year for 5 years to finance this project.

Among the structures planned as part of the renewed building program of Little Rock, Ark., is a new warehouse for the Terminal Warehouse Co., to be erected at a cost of \$150,000, exclusive of the cost of the site. This will be a three-story fire-proof structure with modern facilities. At Montgomery the Alabama-Georgia Syrup Co. is putting up a \$51,000 warehouse. At Valdosta, Ga., the Farmers' Market Association has leased space at the Alliance Warehouse Company's building to aid in marketing produce. At Atlanta a cold storage warehouse with 650,000 cu. ft. of space is to be built by the Atlantic Ice and Coal Corporation.

THE EAST

FINANCIAL interests in Baltimore are reported to be ready to spend \$300,000 for docks, warehouses and sheds, two of the warehouses to cost together \$1,800,000. Meanwhile the Board of Trade is continuing its campaign to attract commerce to the city. The Union Shipbuilding Company has completed construction of a \$75,000 warehouse. The Washington, Baltimore & Annapolis Railway announces plans for a five-story warehouse. The Goodyear Rubber Co. plans a warehouse with 72,000 sq. ft. of floor space.

The American Fruit Growers, Inc., plans to own and operate storage and packing houses in sections of West Virginia and Maryland where warehouse facilities are not available.

The Harbor Commission of Camden, N. J., has asked the City Council to vote a bond issue of \$500,000, part of which would be used to finance construction of a warehouse on the city wharf.

Hazleton, Pa., is planning to erect its own city storage building.

At Rochester, N. Y., the Eastman Kodak Company is completing a warehouse for its own business and will install a tractor-trailer system.

At Troy, N. Y., trade between New England and the West has witnessed such expansion along the State Barge Canal that the State is enlarging the warehouse facilities, and construction of private warehouses is foreshadowed.

The F. M. Hoyt Shoe Co., at Manchester, N. H., is planning a combined warehouse and administration building to accommodate its domestic and foreign trade. At New Haven, Conn., the Texas Oil Co., finds it necessary to build its own warehouse.

The American Grocers' Society, comprising 18,000 members in the East and the South, announces plans for a five-story mile-constructed warehouse at Jersey City—its eleventh structure of this character.

Warehouse construction continues uninterruptedly in New York City. The great structures being planned for Staten Island will be the subject of a special article in *TRANSFER & STORAGE* for October.

At Springfield, Mass., a six-story cotton and textile warehouse is to be built by the Thorndike Co., at a cost of \$200,000.

THE CENTRAL WEST

INDUSTRIAL development in St. Paul is a boon to that city's warehouse situation. A subsidiary of the Soo line is putting up a \$200,000 structure, six stories high.

Similar circumstances prevail at Youngstown, Ohio, where a \$200,000 warehouse planned by the Stambaugh-Thompson Hardware Company will be one of the finest structures of its kind in Ohio. At East Youngstown, the Youngstown Sheet and Tube Co. will improve its shipping facilities by constructing two warehouses at an aggregate cost of \$400,000 and equipped with modern facilities.

At Grand Rapids, Mich., the Kent County Road Commission has been unable to find space to store its valuable road machinery in winter or where repairs could be made, with the

result that it has been obliged to plan erection of its own warehouse.

At Cleveland, the Central Ohio Paper Co. is to build a warehouse for its stock.

At Rock Island, Ill., the H. L. Heinz Co., of Pittsburgh, will convert a building into a distributing warehouse for its products sold in this section of the country.

Real estate items in Chicago include announcements of new warehouses aggregating more than \$2,000,000 in manufacturing sections there. The Central Cold Storage Co. has purchased the Sibley warehouse and adjoining land for \$700,000 and will at an expenditure of \$300,000 convert the property into a cold storage plant, nearby its present one. The Sibley building has been one of Chicago's landmarks.

The Watson Motor Co., at Wichita, Kan., has let a contract for a \$150,000 warehouse for the storage of motor vehicles.

At Lansing, Mich., the Fireproof Storage and Transfer Co. is erecting a six-story warehouse of a type new to that section of Michigan.

At Kansas City, Mo., a \$300,000 warehouse is to be built to be devoted to the storage of music supplies.

THE ROCKY MOUNTAIN DISTRICT

ONE of the largest warehouses in this section will be constructed at Denver for Bourk, Donaldson & Taylor, Inc., wholesale fruit and vegetable dealers, at a cost of \$250,000. It will be 250 feet long and 110 feet wide, having trackage on either side, and a refrigerating plant will be installed in the basement. Meanwhile, the American Furniture Co. has purchased for \$200,000 the warehouse of the Denver Public Warehouse Company, and at an additional expenditure of \$75,000 will erect an adjoining structure, the two buildings to be used for storing furniture.

At Idaho Falls, Idaho, John Scowcroft & Sons, wholesale grocers, of Ogden, Utah, will erect a \$50,000 warehouse for its stock, to be used in expansion of business through that territory.

The pinto bean crops are in need of warehouse facilities in New Mexico—structures where the beans can be cleaned, sacked and stored before being sent to market. To meet this situation, the growers in the vicinity of Estancia are erecting a \$6,000 warehouse, and a structure is going up at Mountain Aid.

A warehouse for storage of plumbing supplies and machinery will be constructed at Albuquerque by the O'Fallon Supply Co. of Denver.

In Montana, the Great Western Seed

Co. is erecting a \$20,000 structure on land leased from the Northern Pacific at Hamilton.

THE PACIFIC COAST

NEW facilities for fruit and grain crops are receiving the attention of builders in Washington. In the Wenatchee district the fruit growers will spend \$500,000 on warehouses, in which will be packed, stored and shipped the year's great apple crop. In sections where there are no warehouses, growers individually are building storage places for holding the fruit temporarily rather than paying warehouse charges elsewhere. New warehouses or extensions to present ones are going up at Monitor, O'Id's Station, Dryden, Okanogan, Wenatchee and other centers of this industry. At the Spokane Union Stockyards two large warehouses are to be built for storage of grain and hay, and new hog and sheep sheds are being installed. Meanwhile, the Jordan Terminals Company is at work on a warehouse and dock on the Duwamish Waterway, and this improvement will afford increased storage and transportation facilities for Seattle's industries.

In Oregon also the fruit crop must be stored, and the Apple Growers' Association will erect a \$15,000 warehouse for handling the district's bumper crop of 1919, with trackage connections from the Mount Hood Railroad Company.

Warehouses are springing up in all parts of California. In the Sacramento Valley the Associated Terminals of San Francisco has obtained possession of a chain of thirteen warehouses, formerly controlled by the Sacramento Northern Railroad. Elimination of the middleman is one purpose of this transfer, and a system of financial arrangements is forecast which will make loans easier for the farmers to obtain.

At Kearny and Francisco streets, San Francisco, a \$450,000 warehouse is to be built.

At Los Angeles a warehouse is to be erected which will serve as a distributing medium to all parts of the country in connection with the organization of a new industrial movement. This involves extensive importation of timber, cocoanuts and other commodities from Guatemala. At Los Angeles a campaign is under way designed to have the city take over the ice and cold storage plants.

At Long Beach, Modesto, Van Nuys, Woodland, Bakersfield, Palo Alto and other Californian towns, warehouses are building or planned to handle grain, rice, beans, cotton, fish and other commodities, including automobiles.

Working with Employees

Kansas City Warehouseman Has Instructions and Suggestions
Printed in a Folder and Distributed to Employees

KANSAS CITY, Mo., August 21.—Getting your workmen in a warehouse to work with you and think in the interests of the firm is a real objective in these days of labor unrest and inefficiency. Today L. T. Crutcher pulled out of his desk a little folder containing instructions and suggestions to the employees. The suggestions are not the mushy-washy type but sane business thoughts put in a sane business way. They are so put as to have an appeal through co-operation rather than through coercion. Mr. Crutcher has them in the hands of every worker in his warehouse and recently he has been slipping a copy of them in the outgoing mail so that his clients will get a little of the Crutcher spirit.

Naturally what is good for Crutcher is good for his employees and is also good for his clients, so all get the ideas. The suggestions talk of service, of turning out electric lights that are not needed, of not putting goods for storage in dirty floor spaces, about using a broom in idle moments, of not clogging the aisles with trucks, of not using profane language and of keeping neat and clean, even if poorly dressed. The suggestions are so good that we reproduce them. They are printed on a little six-page folder. After reading them over revise them to meet your own business ideas and get them printed so that you can give them to your employees and slip them into every bit of mail going to your clients and prospects.

Instructions and Suggestions to Employees of L. T. Crutcher Warehouse Co.

There Is a Profit in Service

THE success or failure of our business depends largely, if not entirely, upon the character of the service we render our customers. It is, therefore, essential that you supply the fullest co-operation in carrying out at all times our plans and policies to satisfy them.

In whatever capacity you are engaged, whether in the office or in the warehouse, your aim should be to produce results satisfactory to our patrons and bring praise to yourself as well as renewed business to us.

This can be accomplished by always being respectful, obliging, truthful, honest and energetic, which costs you nothing. There is a profit in service and we want you to think SERVICE, talk SERVICE, and give SERVICE.

Avoid always, while on duty, profanity, unbecoming conduct, smoking, and last—but not least—drinking. Be courteous at all times and especially in your telephone conversations.

Some time during each year it is the custom of many of our patrons to visit our warehouses. It is a noticeable asset in our favor if our warehouse presents a clean, well-ordered appearance. When we show our customers through the house, the warehousemen will come in for their share of the praise, if they are shaven, their clothing clean—even if worn—and their appearance altogether neat and orderly. We are as much judged by the appearance of our men in the office and warehouse as by our care and attention in handling orders or intelligence displayed in placing merchandise in the warehouse.

Whenever unloading shipments, be careful to avoid making outside comments regarding the poor character of the pack-

ing condition or loading of cars, etc., as it is not your business; besides our revenue comes solely from these very concerns you would injure. Outsiders might take your comments as applying to the character of the goods of our customers.

Your earnest attention is called to the following points, and we ask that they be observed and watched:

First—Whenever you see a light burning needlessly—stop and turn it out. The burning of electric lights in the warehouse or office where not needed, is waste.

Second—Do not drop trucks in the aisles and leave them, push them to one side. Also report at once all broken trucks.

Third—When letters are referred to you for attention and answer, do not delay, for prompt attention to correspondence means a great deal in our business.

Fourth—Pick up a broom—one will be found on every floor—and sweep the floors—whenever you have an idle moment. Never place incoming stock on a dirty space.

Fifth—Make it a point to line up your stock in putting it away and in filling an order from any lot leave the rest of the stock in an orderly condition.

Sixth—Use the greatest care always in filling orders, checking in new stock or goods that are being returned to the warehouse.

Hold Conference Every Two Weeks

Once every two weeks a conference is held in the shipping office and attended by every one connected with the warehouse, to discuss "our business." At these meetings ideas are exchanged, opinions expressed, suggestions made and problems solved. Help make these meetings mean something to you. During your trips through the warehouse, write down any idea that occurs to you or suggestion that you care to make for the good of the business, and let us have these ideas and suggestions at our semi-monthly conferences.

Every man is worth at least \$1.50 per day from his neck down. Your greatest value to the company will depend upon how well you work the part above the neck. The harder you work it, the greater pleased you will be with the results. The greatest waste in business is the unused brains of employees and the growth of a business depends upon the growth of the people in the organization. Consider yourself a part of this organization and pull with the rest.

We have an ambition to be considered the best managed and most efficiently operated warehouse in this part of the country. And it can be accomplished if you give the best there is in you. Think of the standing and name the Bush Terminal Co. of New York, Wakem & McLaughlin in Chicago, and Hasletts in San Francisco have among manufacturers and shippers in this country! We are after the same reputation! Let's get it!

Pennsylvania Warehousemen Approve National Organization

(Continued from page 21)

guests, many of them coming from Pittsburgh, Baltimore, Atlantic City, Newark and other sections. The delegates gathered at the plants of the Fidelity Storage Co. and Miller North Broad Storage Co., Philadelphia, August 9, at 2 p. m., from where they motored to Torresdale, arriving there about 3 o'clock. The afternoon was devoted to a baseball game and other outdoor sports. At 6 o'clock the delegates were served with an excellent dinner at the Morelton Inn, the business session following.

REVISED RULES COVER OCEAN TRAFFIC BILLS

Railroad Administration Fixes New Guarantees Affecting Export Shipments

WASHINGTON, Aug. 20.—Instructions which supersede all previous ones have been issued by the Railroad Administration to govern issuance of through bills of lading on traffic moving through North Atlantic ports, Newport News and Canadian Atlantic ports. The instructions read:

"Through export bills of lading will be issued by the carriers originating the shipments only through the offices of designated general agents, division freight agents or general freight agents, and subject to the following:

1. Ocean Contracts and Guarantees:

(a) The existence of written ocean contracts must be verified, and all conditions of bill of lading must be in accordance therewith.

(b) A written guarantee must be secured from the shipper that any demurrage or storage charges accruing at seaboard will be paid in accordance with the tariffs of railroads serving North Atlantic ports.

2. Notations to Appear on Bills of Lading:

All bills of lading must show:

(a) Reference to G. O. C. permit number and date of expiration thereof.

(b) Reference to United States license number when license required, or state "No License Required" if such is the condition.

(c) Reference to ocean contracts must in each instance be noted on bills of lading.

(d) Name of steamship line. (Note—The name of the steamer and sailing day not to be shown.)

It is required, at present, that the following clauses be written, stamped or printed on all through export bills of lading:

(e) This bill of lading is subject to all clauses appearing on ocean carriers' contract, and on ocean carriers' bill of lading.

(f) Notwithstanding anything to the contrary that may be printed herein, all freights collectible under this bill of lading in the United Kingdom are to be converted into pounds sterling at the quoted rate for sight bills, London or New York, on the date of the vessel's entry at the custom house at the port of discharge.

3. Authorized Steamship Lines:

Through export bills of lading may be issued only in connection with steamship lines, members of the North Atlantic Steamship Conference, or other approved lines who have agreed to accept traffic from the railroads forwarded under inland carriers' through bills of lading.

Through export bills of lading may be issued via North Atlantic ports for shipments destined to South American, African, East Indian, Asiatic or other destinations, when for trans-Atlantic movement or for Pacific Ocean, when so requested by shippers, provided the issuance of such through export bill of lading is also satisfactory to the ocean carrier.

In case traffic is offered in connection with ocean lines other than those speci-

fied, agents must first ascertain if the ocean line involved is agreeable to the issuance of the through bills of lading so as to avoid any possible misunderstanding.

4. Payments of charges:

(a) Inland Freight Charges: Advices from all ocean lines stipulate that all inland freight charges must be fully prepaid. This prepayment must be made to the initial carrier at the point of origin and the bills of lading so endorsed.

(b) Ocean Freight Charges: Ocean charges are to be collected by the steamship line and bills of lading should read, "Ocean charges collect," except as provided for in paragraphs (c) and (d) hereof.

(c) Ocean charges may be prepaid when the ocean contract rate is shown in cents per 100 pounds. Bills of lading must show amount prepaid.

(d) Where ocean contracts are based on measurement, ocean charges may be prepaid. Bills of lading must show amount prepaid. Discrepancies as between amount arrived at for prepayment at inland point of shipment and by the steamship company at port of export will frequently arise, and an understanding has been arrived at with the steamship lines that where there is a charge due the steamship line in excess of original prepayment at inland point of shipment, such undercharge will be reported by the steamship line to the delivering inland carrier, who will undertake to make collection as promptly as possible, and remit the amount to the steamship company after collection from shippers."

TRUCKS NECESSARY

SACRAMENTO, CAL., Aug. 22.—The necessity of marketing crops has led to the purchase of motor trucks by many van owners in this territory. Virtually all rice, wheat, barley, oats and other grains produced around Sacramento are moved forward in motor trucks, and spinach also is being transported by machine during the present season.

GROCERY DISTRIBUTION

LITTLE ROCK, ARK., Aug. 25.—A system of co-operation in distributing goods coming from producers in the vicinity of Little Rock is being worked out by local grocers, who plan the organization of a buying association. In carrying out this idea a warehouse with storage facilities would be erected. The support of the producers is to be solicited.

FREIGHT TUNNEL ADVOCATED

NEW YORK, Aug. 28.—Construction of a freight tunnel under the Narrows of New York harbor to connect the Baltimore & Ohio Railroad of Staten Island with the Long Island Railroad tracks in the Bay Ridge waterfront territory of Brooklyn is being advocated jointly by the Brooklyn, Queens Borough and Staten Island Chambers of Commerce. It is claimed that such an improvement would simplify the transportation of both raw products and finished goods, which are now carried on lighters, and would help in relieving harbor congestion. Also, the tunnel would give "a direct all-rail route to southern and western points via the Pennsylvania Railroad and the Baltimore & Ohio Railroad and their various connections."

METRIC CAMPAIGN WINS NEW SUPPORT

Sponsors Announce Approval By Redfield, McAdoo, Crowell and Others

SAN FRANCISCO, Aug. 23.—The World Trade Club of San Francisco, in co-operation with the Metric Association of New York in a campaign to have the United States Government adopt the metric units of weight and measure, has issued expressions of opinion by Secretary of Commerce Redfield, former Secretary of the Treasury McAdoo, and Assistant Secretary of War Crowell intended to indicate their conviction that the metric system should be made effective.

Secretary Redfield is quoted as saying that the metric standards are necessary if this country is to obtain world trade, adding: "I would not cause needless expense to any American concern nor advocate that even necessary changes be made too suddenly, but I would point out to them that we cannot think in 1919 the thoughts of 1914 (to our safety and advantage), because we are living in a different world. One of the problems involved in our adjustment to the new world is this matter of simplified weights and measures, and we may as well prepare at once gradually to make the changes necessary."

Mr. McAdoo is quoted as follows: "It was a most unhappy event that the metric system was ever defeated when it came up—a monumental mistake. If taken up seriously and applied intelligently we could get it transformed in a few years, and it would do more for the development of trade than anything ever yet attempted."

It is pointed out that Assistant Secretary of War Crowell in his report "America's Munitions", which he prepared in his capacity as Director of Munitions, declares that the United States was hampered during the war because it did not use the metric system, American ordnance engineers losing many weeks of time in their work of co-ordination with the French, who employ that system.

The World Trade Club announces that the following organizations are among those who are on record favoring the meter-liter-gram system: American National Wholesale Grocers' Association; American National Canners' Association; Associated Steel Manufacturers of U. S. America; American Association for the Advancement of Science; American Drug Manufacturers' Association; American Institute of Chemical Engineers; American Pharmaceutical Association; American Institute of Makers of Explosives.

BLACK SEA FREIGHT SERVICE

NEW YORK, Aug. 28.—"Financial America" says that the International Mercantile Marine Co. announces establishment of a new trans-Atlantic passenger and freight service between New York and Constanza, by way of Constantinople.

WAREHOUSES FIGURE IN HIGH LIVING COST

**In Them Are Stored Foods
Worth Billions — Swift
Approves Cold Storage**

WASHINGTON, Aug. 26.—The American warehouse is attracting extraordinary official attention at this time because of what may be its contents. It is being subjected to Federal scrutiny in connection with the Government's campaign to reduce the high cost of living; and one type of it—that dealing with cold storage—will probably find itself regulated by legislation enacted by Congress, for President Wilson in his address on August 8 recommended that a cold storage law be passed modeled upon the New Jersey law, by which a limit is fixed upon the time during which food may be kept in cold storage.

The seizures conducted by Federal attorneys during the two weeks subsequent to the President's address to Congress indicated clearly, in the opinion of Government officials, that the American warehouse has, either innocently or otherwise, been a contributing factor toward higher living costs. Millions upon millions of tons of food have been uncovered in storage plants throughout the country, and the aggregate value of the edibles confiscated will run into many billions of dollars. In New York alone, according to one estimate, there was \$1,500,000,000 worth of commodities awaiting bottoms for shipment abroad. Boston, Detroit, Chicago, Buffalo, St. Louis, Cleveland and other cities all report great stocks found in warehouses.

Figures compiled and issued here recently by the Federal Trade Commission show that on June 1 there were in cold storage in this country 1,671,777,990 pounds of food, as compared with 1,669,826,166 pounds on June 1, 1918. Dry storage stocks aggregated 7,875,280,040 pounds on June 1, as against 6,336,763,505 pounds on the corresponding date last year. These statistics do not include Army supplies. Of interest to warehousemen, particularly the cold storage owners, in connection with the Federal seizures of foodstocks, is a statement issued in Chicago by Louis F. Swift, of Swift & Company. After denying that this company was holding commodities for speculative purposes, Mr. Swift said:

"Cold storage performs a real economic service not generally appreciated by the public. The present system has been evolved by the public demand—they want some of this produce throughout all the year. That is to say, they do not want to eat all their eggs in six months and then go without during the remainder of the year. If it were not for cold storage much of the perishable food produced during the months of heavy production would be lost, because the supply would temporarily exceed the demand and prices would fall so low that production would be discouraged. Later, without storage stocks to draw from, a

serious shortage of these commodities would occur, with resultant high prices.

"If stocks are commandeered and thrown on the market there is little question but that current prices will be forced down temporarily. But where will your butter and eggs come from next winter, when these storage stocks normally would be used to bridge over these months of small production?"

BARGE CANAL CAPACITY NOT USED TO MAXIMUM

ALBANY, N. Y., Aug. 26.—Of interest to distributors of grain and coal is a statement issued by Edward S. Walsh, State Superintendent of Public Works, regarding the possibilities of the New York State Barge Canal as a carrier of commodities.

"Very shortly the greatest grain crop this country has ever produced will be marketed," Mr. Walsh said. "The barge canal is equipped to transport a big percentage of the grain coming from the northwest to Buffalo. Now that a car shortage threatens, perhaps, instead of shipping the grain from Buffalo to seaboard by rail, the conservation of railroad equipment that would result by diverting a fair share of the grain tonnage to the waterway will influence Government officials to give favorable consideration to the water route."

Mr. Walsh declared that New York State must have State-owned terminal facilities, including grain elevators at both lake ports and tidewater; these, he said, could compete with railroad-owned elevators and a greater proportion of the grain would pass through the canal.

Coal distributors had failed to take advantage of the canal's facilities, Mr. Walsh added, and the shortage of this commodity could be relieved by increasing the volume of it moved through the New York waterway.

ASK \$400,000,000 FOR ROADS

SALT LAKE CITY, UTAH, Aug. 28.—At a conference held in this city, twenty Governors expressed their willingness to sign individually (not as a Governors' conference) a resolution prepared by Governor Allen of Kansas, direct to Congress, asking that the Federal Government make an additional appropriation of \$400,000,000 for the building of roads, this amount to be expended within the next 5 years.

MIRROR LAW FOR TRUCKS

NEW YORK, Aug. 28.—A law requiring trucks, buses and all other commercial motor vehicles of capacity of one ton or more to carry mirrors becomes effective throughout New York State on September 1. The Automobile Dealers' Association sent a memorandum on this subject to its members, and dealers generally have been equipping machines in stock to conform to the legislation.

MINNESOTA MAY PASS A NEW STORAGE LAW

**Bill Will Be Introduced Which
Would Require Warehouses
To File Lists of Contents**

MINNEAPOLIS, Aug. 21.—When the Minnesota Legislature meets in September it will have before it the draft of a bill which if enacted will require storage houses throughout the state to file with the authorities information as to property stored in them.

This measure, recommended by the Minneapolis City Council for passage, would require storage houses to submit verified lists of property, for purposes of taxation, giving names and addresses of owners, probable duration of storage, and estimates of value. Violation of such a law would be a misdemeanor.

G. L. Fort, the city assessor of Minneapolis, declared there was need for such legislation after he had again failed to obtain information from certain storage houses. He has been confronted with this situation year after year. E. F. Fortier, deputy assessor, and Charles D. Gould, city attorney, prepared the bill to be placed before the Legislature.

Meanwhile the city assessor has made arbitrary assessments as follows: Booth Cold Storage Co., \$250,000; Minneapolis Cold Storage Co., \$300,000; Merchants Cold Storage, \$200,000; Progress Refrigerating Co., \$50,000. If these assessments are resisted the property cannot be taxed until early in 1920.

NEW WAGE DEMANDS BY WAREHOUSE WORKERS

SAN FRANCISCO, Aug. 21.—The plea that 1200 warehouse workers in this district are "individually and collectively in a state of practical bankruptcy, owing to the greatly changed conditions since the last agreement was signed" with employers, is advanced by the men in their campaign begun to obtain better wages. Increased pay is necessary if the workers and their families are to enjoy a living existence, the warehouse owners have been informed. The men demand an advance of \$1 a day effective November 1, when the present agreement expires, and the movement has the support of the San Francisco Labor Council, the Waterfront Workers' Federation and other labor organizations.

TO CHECK UNFAIR RATES

NEWARK, N. J., Aug. 27.—The city ordinance relating to the transportation of goods on motor and horse-drawn vehicles is being revised by the municipal authorities to allow these carriers increased rates, but at the same time to put a check to exorbitant charges. An amendment will be enacted which will hold warehouse owners responsible for loss of or damage to goods entrusted to their care by patrons. Under this amendment all warehouse owners in Newark must be licensed.

N. Y. VAN WORKMEN HAVE NEW AGREEMENT

Householdgoods Men Given Schedule Revision Which Attracts Wide Attention

NEW YORK, Aug. 20—A new agreement governing hours, wages and conditions of labor "for all persons handling household goods for moving, storage, packing or shipping" in this city has been made public, effective for one year beginning August 1 as between the Van Owners Association of Greater New York and Local 273. In the light of dissensions in many parts of the country where this class of labor is making demands, the revised standards accorded the New York men are in some quarters here considered worthy of study elsewhere.

Weekly wages are fixed as follows: \$32 for chauffeurs of gas cars of 1½ ton capacity or over, and \$28 for chauffeurs of gas cars of less than 1½ ton capacity and for chauffeurs of electric vans; \$27.50 for drivers of two-horse wagons and \$24.50 for drivers of one-horse wagons; \$29 for packers and room packers; and \$25.50 for helpers. When trailer is attached, 10 cents an hour is added to the chauffeur's wages. A tractor is to be considered as more than 1½ ton. Some of the other features of the agreement are as follows:

"Nine hours shall constitute a day's work, from 7:30 A. M. until 5:30 P. M., excepting Saturday, during July and August, the day's work shall begin at 7:30 A. M. and end at 12:00 noon. Extra men employed Thursday and Friday during the months of July and August cannot be laid off Friday night.

"One hour for lunch, as near noon as conditions will permit.

"Members ordered to report for work on Sundays, New Year's, Lincoln's Birthday, Washington's Birthday, Memorial Day, Independence Day, Election Day, Thanksgiving Day and Christmas Day shall receive a day's pay at single time, and one hour in addition for each hour worked. Nothing less than five hours considered. Before 7:30 A. M. or after 5:30 P. M. on Sundays or the holidays mentioned, two hours for each hour worked.

"Members of Local 273 working before 7:30 A. M. or after 5:30 P. M., or during lunch hour, to receive overtime. Straight time to apply between 5:30 and 6:00 P. M.

"All overtime accruing on City work after 6:00 P. M. and before 7:30 A. M. to be at time and one-half. Straight time on out-of-town van work, except on Sundays and holidays, when the Sunday and holiday rate will apply. Single time only to be paid in the event of a breakdown or disablement of van.

"Time to be taken at stable, garage or warehouse. No work to be done after stamping or signing time-card. No other system of time-keeping to be used.

"Where ordered out to report at 6:00 A. M., or before, breakfast to be paid for by the employer. When out until 8:00 P.

M. or later, supper to be paid for by the employer. Meals to be paid for at the rate of 50 cents each, per man.

"When members of Local 273 are compelled to remain away from home overnight on account of their employment, the employer shall pay his lodging at the rate of \$2.00 per man, per night, and meals at the rate of 50 cents each, unless customer will provide suitable accommodations. This rate to be fixed every six months. This paragraph to include packers. If men drive all night, they are entitled to the hotel expenses, unless ordered otherwise."

PENNSYLVANIA TESTS TRUCK WEIGHT LAW

PHILADELPHIA, Aug. 23—The Highway Department of Pennsylvania is going to try out a machine to weigh motor trucks and their loads, with a view of seeing that the new State law limiting weights is kept.

Wherever possible, every principal State highway, known as an arterial road, is being constructed of reinforced concrete. To prevent heavy trucks from injuring these roads by causing a certain amount of vibration in the body of the cement, tending to disintegrate it, the new motor car law fixes the maximum weight of trucks, as already announced. If intended for use on State highways, the maximum weight for a truck is 26,000 lb. With machines of the proposed type there will be no guessing as to weight.

If the machine test proves satisfactory, no less than forty of the weighing machines will be manufactured and distributed at various points in the State. They will be portable and easy of operation.

SHIPPERS PROTEST OVERRULED

NEW YORK, Aug. 29—A protest filed by merchandising organizations against the regulations of the American Railway Express Co. affecting the preparation of goods for shipment has been without avail. The United States Railroad Administration, it is announced here, has overruled the objections and the regulations will become effective on December 1.

Shippers will be required to adopt a new system of packing by using outside containers of various weights. The purpose is to minimize thefts in transit.

According to spokesmen for the organizations which entered objection, enforcement of the order will increase by \$2,000,000 annually the expenses of New York shippers alone, and the new burden will fall upon consumers.

For the information of shippers, copies of the new regulations may be obtained at offices of the American Railway Express Co.

TEAMSTERS UNIONIZING

WHEELING, W. VA., Aug. 21—Truck drivers and teamsters in this territory are applying for membership in the Ohio Valley Trades and Labor Assembly and in the American Federation of Labor.

WAREHOUSE LAW AIDS BOSTON FISHMEN

District Attorney Informed by Witness that Legislature Was Apparently Deceived

BOSTON, Aug. 23.—District Attorney Joseph C. Pellitier, who in his campaign against the high cost of living is investigating the storage of food in warehouses, disclosed to-day that he had been informed by one of the witnesses called before him that the fish interests had succeeded in having a "joker" law enacted by the legislature this year "exempting them from being amenable to the law." According to the official's statement the present law, effective in Massachusetts until November 1, covers warehouses of all kinds, together with the food stored in them. The new act, passage of which was opposed by the Board of Health of Boston, exempts private warehouses.

According to Mr. Pellitier the fish interests may under the new law remove from public warehouses such fish as has been in storage close to the allotted time, one year, and put it in private warehouses. There it may not be inspected or touched, as health officers will not have the right to enter the buildings. Thus the fish may stay there indefinitely, the prosecutor said.

The present law gives the director of the food and drug division of the Board of Health jurisdiction over fish and other foods, but after November 1 that jurisdiction will go to a State official appointed by the governor.

Mr. Pellitier stated that the fish dealers here had 300,000 to 500,000 pounds of fish in storage warehouses, the primary purpose being to keep the prices up. Although the fishermen's strike, which has for months been in progress, has caused a shortage, Mr. Pellitier declared that much fish had been withheld from the markets. When fish has been in storage longer than a year it is considered unfit for food, and in his investigation of this phase of the situation the prosecutor is having books and men summoned before the grand jury to determine whether there has been a conspiracy.

As a result of the discovery of the alleged "joker" there is some talk of the initiative and referendum. Were a sufficient number of signatures obtained on a petition the law would not go into effect until the voters passed on it.

REPARATION DECISION

WASHINGTON, Aug. 25—Among the interesting decisions handed down by the Interstate Commission is an order of reparation on account of an unreasonable charge on a carload of furniture from Martinsville, Va., to Spokane, Wash. The shipper asked for a fifty-foot furniture car. The carrier furnished two 36-foot cars under rates that did not have the two for one rule and collected on a minimum for each car, instead of protecting the rate that would have applied had it furnished the character of car ordered by the shipper.

POTATO CROPS LACK STORAGE FACILITIES

Government Issues a Warning to Growers Emphasizing Necessary Precautions

WASHINGTON, Aug. 23.—With the potato crop season approaching, the United States Department of Agriculture issues the warning that the construction of proper storage facilities to handle the tubers, particularly the sweet variety, has not kept pace with the development of the industry. "An explanation of why the southern farmers have not received better prices for their sweet potatoes," it is officially stated, "is that they have not used proper methods of handling and marketing." Because of poor storage methods and unintelligent ways of distribution, potatoes rot before reaching the retailers, and the profits the farmers might obtain are lost.

"The leading sweet potato growing States are those that make an extensive use of storage houses," the warning says. "Efficient storing is a simple method whereby the value of the crop may be increased materially without adding very greatly to the production cost. An improvement of present methods is particularly desirable in the South, where the crop is either rushed on the market at digging time, when the price is low, or stored in outdoor pits or banks, where from 25 to 50 per cent. of it decays, while the portion that remains sound is not of good quality."

For three years the Government has been conducting a campaign for more storage houses for sweet potatoes and has sent representatives through the Southern States with information to growers and shippers regarding proper methods of storing and distributing. The subject is discussed in detail in the Department of Agriculture's Weekly News Letter of date of Aug. 20 and in Farmers' Bulletin 970; and the white potato situation is considered in the Department's Weekly News Letter of date of July 30. All three documents may be had from the Department for the asking and should prove to be of inestimable value to the industry.

ADOPT NEW TARIFFS

KANSAS CITY, MO., Aug. 29.—The Warehousemen's Association of Kansas City has adopted a new schedule of tariffs, and certain new rules, promulgated to the trade the last week in August, effective September 1. They are issued as "Standard Rules and Regulations," printed in a folder on the front of which is the name of the warehouse company transmitting the schedule.

Among the changes from previous rules is an excess delivery charge of 25 cents—one delivery without extra charge being allowed for each ton of goods received.

The most important new rule is that demurrage charges will not be absorbed

by the warehouse company. There have been months in the past year when warehouses paid as high as \$3,000 on demurrage—not more than 15 per cent of which was collected from the shipper or consignee.

"Warehousemen have made less net profit in proportion to increased volume of business than any other business men," said one manager. "The demurrage charges have just about represented what our fair net profits ought to have been—and we didn't get those profits."

The new rule is as follows:

"Demurrage charges will not be absorbed by this company. All possible diligence will be used to unload cars in the order in which they are received from the carrier, and all credits due this company through the average agreement with the carrier will be prorated to the different consignees. The net balance of demurrage charges, if any, assessed against this company will be applied to cars of consignees so penalized."

CARRIER MUST RETURN SHIPPER'S WAR TAX

WASHINGTON, Aug. 27.—Under a decision given by the solicitor for the internal revenue commissioner, when a shipper obtains an order of reparation from a carrier and the carrier decides to obey it without resorting to law, the shipper is entitled to have returned to him by the carrier the war tax which the shipper paid on the unreasonable part of the rate, and this return must be made by the carrier at the time the reparation for the unreasonable rate is paid by the carrier.

The reasoning of the solicitor is that the carrier, having collected a tax on a charge that was not legal, should be authorized to make refund and to carry the item of such refund into its accounts and make return on it in the month following the refund of the illegally imposed tax.

The solicitor's decision is a consequence of a ruling by the Interstate Commerce Commission that taxes, having been paid into the United States Treasury, are funds of the United States which in theory can be paid out only by warrants issued by the Treasury, based on an appropriation of the money by Congress. The Treasury, however, has authority to make refunds when money has been erroneously collected.

NEW TRANSFER ROUTES

LOS ANGELES, CAL., Aug. 22.—The State Railroad Commission has overruled protests entered by the Pacific Electric Railway Co. and has granted motor stage permits as follows: H. M. Tolson, to operate freight service between Los Angeles and Torrance; Acme Transfer Co., to operate express and baggage service between Los Angeles and Venice and Santa Monica; Frank J. Barton, to operate express and baggage service between Santa Monica, Ocean Park and Venice.

MISSISSIPPI TERMINALS RECEIVING ATTENTION

Government Deplores Delay in Situation Involving Waterway Rates

WASHINGTON, Aug. 22.—The subject of river terminals and waterway freight rates is receiving serious attention in many authoritative quarters here. The Railroad Administration is understood to be giving particular consideration at this time to the situation along the Mississippi, where \$10,000,000 already has been spent toward the development of a barge line in advance of the building of the necessary number of terminals at points along this river.

Only St. Louis and Memphis are planning freight terminals. The attitude of the Railroad Administration is said to be that the Government will not delay further in the hope that other cities will build; instead, the Government is understood to be planning its own terminals, including warehouses at each port.

With the facilities of the Mississippi barge line expanded and with terminal facilities adequate, the Railroad Administration would be in a position to fix joint rates with the railroads lying at either side of the river.

M. J. Sanders, Federal manager of the barge line, recently returned from Europe, declared that the question of tariffs is closely associated with terminals. "I feel that as soon as we have adequate terminals at the main ports of the Mississippi, St. Louis, Memphis and Vicksburg," he said, "we will find the Railroad Administration ready to authorize the tariffs for which we have applied."

Reports from Cincinnati indicate that the Chamber of Commerce there is favorably disposed toward the building of a river-and-rail transfer terminal on the Ohio to accommodate the increasing industrial needs. At Trenton, N. J., the improved channel facilities in the Delaware River will be of immense commercial importance and plans already are under way for extensions of railway facilities, an addition to the municipal dock, and establishment of a farmers' wholesale market on the dock.

Meanwhile the National Rivers and Harbors Congress is campaigning for a more equitable rate system affecting inland waterways as compared with the railroads. The refusal of the rail carriers to join with the boat lines in through routes and joint or proportional rates is held to be detrimental to the water carriers, and certain existing rates allowed by the Interstate Commerce Commission are declared to be discriminatory in favor of the railroads.

TRUCK OWNERS ORGANIZE

BOSTON, MASS., Aug. 24.—Truck owners have organized an association to be known as the Motor Truck Club of Massachusetts. The purpose is to promote the interests of its members, particularly in the elimination of the necessity for civil suits.

Reduction in Food Storage Foreseen

Newspapers Exaggerate Importance of Food Found in Storage—
Kansas City Warehousemen to Seek Method of
Correcting Misapprehension

KANSAS CITY, MO., August 20.—Merchandise warehouses carrying foods foresee a radical reduction in food storage during this fall. Jobbers show a disinclination to buy heavy stocks, two handicaps prevailing: one is the uncertainty as to possible profits on foods bought at present prices, the other the possibility of government attachment of stocks stored. One Kansas City warehouse company, the Brokers Office & Warehouse Co., specializing in food warehousing; two other companies doing general merchandise warehousing accept potatoes, and most of the companies do more or less storing of canned and sacked foods, flour, sugar and similar commodities.

Kansas City is an important collection and distribution center for foodstuffs; and the effect here of disturbance of food distribution will be widely felt.

Two "raids" have been made by federal officials on food stocks. One lot of 44,800 pounds of beans, and a lot of about 1000 cases of canned tomatoes, were attached in the storerooms of the Brokers Office & Warehouse Co. The beans were consigned to the broker who stored them; most of them were Manchurian beans, consigned by a Pacific coast importer, stored since last October, which the broker had been unable to sell.

Newspapers Give Public Wrong Impression

Unfortunately, the newspapers exaggerated the importance of the "find," referring in large headlines to "100,000 pounds of beans," and giving the impression that the warehouse company itself had been hoarding them for profiteering purposes.

The net effect of the publicity, therefore, was threefold: to deter the purchase of food supplies; to discourage storing in warehouses; to disparage the service of warehouses.

Warehousemen have been seeking some method of cor-

recting the misapprehension of the public with reference to the implied guilt of customers of storage space, and have also sought a plan for instructing the public as to the function and responsibility of warehouses. They have decided that they can do nothing for the present, and must wait until further developments in the efforts to reduce the high cost of living have helped to educate the public on the facts.

Kansas City an Important Distributing Center

The large amount of new business being offered Kansas City merchandise warehouses by eastern manufacturers indicates a sudden access of interest in Kansas City as a distributing center and in Kansas City territory as a buying territory. The wide exploitation of the wealth coming into the territory from unprecedented farm production is evidently attracting manufacturers' attention. The quickest way to effect distribution is by means of warehousing—and the manufacturers evidently want to get started in the territory as promptly as possible.

A preponderance of the commodities offered relates to automotive equipment. This fact reflects the large increase in the number of motor cars, trucks and tractors in Kansas and Missouri.

The sudden appearance of Missouri in the ranks of states buying trucks and tractors is an important factor in the increased demand for warehouse services. Kansas City is the distributing center for Kansas and the western half of Missouri—while many firms have other states also. Until about 2 years ago Missouri received little attention from distributors. The state has spurted up in scores of lines in these 2 years and has become quite as big a market as Kansas. Missouri being comparatively a virgin field, there are larger sales opportunities for those who get in on the ground floor.

Sacramento Adopts Uniform Trucking Rates

SACRAMENTO, CAL., August 18.—The Sacramento County Draymen's Assn., at its recent meeting, established a uniform rate for the handling of household goods. It is as follows:

Inter-city work—auto van, driver and helper, \$3 per hour. For moving pianos to first floor, \$4, and \$1 for each additional flight. The pianos are not moved with household goods effects, but with special auto trucks.

Special rates for moving household goods to various points in California have also been adopted. The basis of figuring these rates are as follows:

Base rate—minimum load, 3,000 lb. A

loading and unloading charge of \$10, plus 60 cents per mile. An additional rate is charged per hundredweight for all over 3,000 lb., and also a loading and unloading charge of 25 cents per hundredweight, and a mileage charge of 1½ cents per hundredweight. The following is an example based on a 4,000-lb. load 20-mile trip:

3,000-lb. load—loading and un-	
loading charge	\$10.00
20 miles at 60 cents	12.00
1,000 lb. over minimum, at 25 cents	
per cwt.	2.50
Line haul, ½ cent per cwt. per mile,	
20 miles at ½ cent	1.00
Total	\$25.50

The following are tariffs in tabulated form as adopted by the Sacramento Association:

Mileage	3,000 lb.	Over 3,000 lb. per cwt.
10	\$16.00	30 cents
11	16.60	31 cents
12	17.20	31 cents
13	17.80	32 cents
14	18.40	32 cents
15	19.00	33 cents
16	19.60	33 cents
17	20.20	34 cents
18	20.80	34 cents
19	21.40	35 cents
20	22.00	35 cents

WAREHOUSING NEWS

MERCHANDISE WAREHOUSING

FLOERSHEIM MERCANTILE CO., Springer, N. Mex., due to the unusually large crop of grain and beans this year, will construct a large warehouse for the storage of its products. The company is also constructing a large grain elevator. When the latter plant is completed it will be one of the largest in the state.

Check-Neal Coffee Co., Richmond, Va., will erect a new warehouse in South Richmond, which will cost in the neighborhood of \$135,000.

W. H. Schmelzel, St. Paul, Minn., has secured a permit to build a one-story brick warehouse estimated to cost \$40,000.

Valier & Spies Milling Co., St. Louis, Mo., has purchased a parcel of ground and will construct a new warehouse, 110 x 112 ft.

Innes Wholesale Furniture Co., Wichita, Kan., has been granted a permit to build a warehouse, 125 x 225 ft.

Northwest Trading Co., Seattle, Wash., will erect a warehouse, 60 x 150 ft., with trackage facilities. It will cost in the neighborhood of \$20,000.

National Warehouse Co., Peoria, Ill., filed application for permission to construct a warehouse in Peoria.

Wheelock, Lovejoy & Co., New York, have purchased a plot of ground, 200 x 228 ft., at Irvington, N. J., and will construct a fireproof warehouse. The warehouse will be used for general storage and distributing purposes. The building will be a one-story brick and steel structure and will have a large loading platform which will be level with the floor of a freight car.

California State Rice Milling Co., West Sacramento, Cal., will add facilities to its present plant by constructing a warehouse, 150 x 350 ft.

Trans-Continental Freight Co., Chicago, has opened a warehouse and office at Cleveland, to innovate carload service between Cleveland and New York. Mr. L. P. Sherrick is the general agent and Mr. L. A. Roell the assistant.

Haney & Skiles, Sunnyside, Wash., have completed plans for the construction of a warehouse, 40 x 50 ft., which will be erected along the main line of the Northern Pacific railroad.

Security Storage Co., Washington, D. C., has begun work on an addition to the main warehouse at Fifteenth Street. The new building will cost \$90,000 and will contain 30,000 sq. ft. of space.

Southwest Cotton Co., Phoenix, Ariz., has begun to lay the foundations for sev-

eral large warehouses. These buildings will be used for the storage of cotton seed. They are expected to be completed within a short time.

Long Beach Transfer & Warehouse Co., Long Beach, Cal., has asked for a permit to build a spur track from the Salt Lake R. R. line to its proposed four-story warehouse.

Riverside Storage & Cartage Co., Detroit, Mich., will erect a six-story reinforced concrete warehouse which will be built in two sections, one being 50 x 100 ft. At this time the dimensions of the second unit have not been agreed upon.

Louisville Veneer Mills, Louisville, Ky., have been granted a permit to build a 90 x 90 ft. warehouse to cost in the neighborhood of \$10,000.

Snyder & Swain Corp., New York, have plans under way for a six-story reinforced concrete 200 x 200 ft. warehouse to cost \$200,000.

A. Y. McDonald Mfg. Co., Omaha, Neb., will construct a warehouse. The building will be 66 x 132 ft. and eight stories high.

John Hoffmann & Sons, Milwaukee, Wis., have purchased a parcel of ground and will erect a large warehouse for the storage of groceries. It is the intention of the company to begin building operations at once.

Milton Auerbach, San Francisco, Cal., will construct a three-story concrete warehouse. The cost of the building is estimated at \$30,000.

Wackerman & Henze, York, Pa., has purchased a four-story brick warehouse for merchandise storage purposes. The firm also operates another warehouse for furniture storage. This company operates six trucks.

Union Storage Co., Washington, D. C., has recently purchased a warehouse near a railroad siding and will handle pool cars and distribution.

TRANSPORTATION

Pacific Livery & Transfer Co., Marshfield, Ore., has purchased a number of new trucks and will engage in the business of general trucking. This has been done because Mr. Mulloy, the general manager, has come to the conclusion that it is cheaper to use trucks than teams.

Globe Transfer Co., Grand Rapids, Mich., has purchased two G. M. C. trucks, one a 1½-ton and the other a 2-tonner. The trucks are to be used for general transfer work, both local and intercity.

New York & New England Freight & Storage Co., Boston, Mass., has been formed to do a long distance transfer

business between the Boston and New York warehouse. F. L. Z. Caracristi is treasurer and general manager.

ASSOCIATIONS

Merchant Truckmen's Assn., Syracuse, N. Y., is the name of a new organization which succeeds the Van Owners' Assn. of that city. The new association was formed for the protection and welfare of the truckmen in Syracuse. The officers elected were: Isaac R. Alvord, President; J. Henry De Boer, Vice-President; William J. Connor, Secretary, and Joseph F. Holthaus, Treasurer.

American Transfermen's Assn., St. Joseph, Mo., elected the following officers at its recent convention held in Chicago: H. V. Gray, Des Moines, Iowa, President; Heber Page, Dallas, Tex., 1st Vice-President; T. L. Eibeck, Peoria, Ill., 2nd Vice-President; O. W. Warner, Los Angeles, Cal., 3rd Vice-President; E. M. Hansen, St. Joseph, Mo., Secretary and Treasurer.

Los Angeles Transportation Assn., Los Angeles, Cal., has changed its name to the Traffic Club of Los Angeles.

HOUSEHOLD GOODS

Traphagen Storage Warehouse Co., Newburgh, N. Y., has purchased a third warehouse containing 4000 sq. ft. of space. The building will be equipped with thirty private rooms and will be used for the storage of household goods. It is of brick construction and equipped with an elevator.

FIRES

Cooper's Co-operative Warehouse, Henderson, N. C., suffered a loss of its plant by fire on Aug. 3. The loss was estimated at \$50,000.

INCORPORATIONS

Crowan Co-Operative Warehouse Co., Winton, N. C., has filed articles of incorporation with a capital stock of \$100,000. The incorporators are K. R. Israel, Tunis; S. P. Winborne, Como; P. E. Shaw, Winton.

Independent Warehouse, Inc., New York, has been incorporated with a capital of \$500,000. The officers are G. M. P. Murphy, Eugene W. Stetson, James L. O'Neill and John P. Maguire.

Service Warehouse Corp., New York, has been incorporated with a capital of \$30,000. The directors are A. C. Quinn, N. W. Chandler and J. M. Stoddard.

Wilmington Warehouse & Dock Corp., Wilmington, Del., is a new company recently incorporated with a capital of \$300,000 to carry on a general warehousing and cold storage business.

Great Northern Warehouses, Inc.,

Syracuse, N. Y., has filed articles of incorporation with a capital stock of \$700,000 to carry on a general warehouse business. The officers are Ben Wiles, Gustavus W. Thompson and Elmer T. Eshelman. The company will erect a seven-story, 150 x 200 ft., fireproof warehouse within the near future.

Palo Alto Transfer Co., San Francisco, Cal., has recently been incorporated with a capital of \$20,000. The following officers were elected: H. N. Vandervoort, president; Joseph Silvey, vice-president, and I. P. Vandervoort, secretary and treasurer. The company is erecting a two-story reinforced concrete warehouse, 65 x 75 ft., which will be used exclusively for the storage of household goods. A fleet of three trucks has been purchased.

Garrett Transfer Co., Pocatello, Idaho, has filed articles of incorporation with a capital stock of \$65,000. The directors are Clarence A. Garrett, Leonard T. Garrett, Oscar W. Garrett, Fred W. Perry, Hans Albrecht, Philip Joyal and Glen W. Sample.

MISCELLANEOUS

H. G. Paustian, a representative of the L. T. Crutcher Warehouse Co., Kansas City, Mo., has returned from active service having been at the Argonne and Verdun fronts for over 2 years. Mr. Paustian returns with an honor, having received a Croce Di Guerra, Croix de Guerre and an American distinguished service cross for his bravery during the Argonne and Verdun battles.

Major Ernest E. Olmsted, Des Moines, Iowa, formerly superintendent of the Merchants Transfer & Storage Co., who recently returned to the United States from military service, has resigned his position with the Merchants' people and left the transfer business. Major Olmsted has taken a position with the Great Western Accident Co., a Des Moines insurance concern.

George W. Purkey, Orange, Cal., has purchased the business of the Orange Ice & Transfer Co., of Orange, Cal.

George L. Carter, Hillsboro, Ore., has sold his interest in the Hillsboro Transfer Co. to Charles Brandaw.

Callan Bros., Inc., New York, have purchased the block of waterfront at Gowanus Bay, containing 250,000 sq. ft. The company now operates eight warehouses and plans to improve the property with docks and warehouses of modern type which will cost \$2,000,000.

Denver Public Warehouse Co., Denver, Colo., has sold its plant to the American Furniture Co. for \$200,000. The building is 110 x 200 ft. The American company expects to build a \$75,000 warehouse on its adjoining property.

Vandam Warehouse Co., New York, has leased the third floor of its building to the Keystone Tire & Rubber Co. for storage purposes.

Augusta Warehouse & Compress Co., Augusta, Ga., will install compartments which will accommodate 12,000 bales of cotton. The improvement will cost in the neighborhood of \$70,000.

Yakima Valley Brokerage Co., Sunny-side, Cal., is constructing a 16 x 116 ft. platform at its warehouse.

Labor Unrest Warehousemen's Major Problem

(Continued from page 15)

panies are on strike, asking for a recognition of their union and for an increase of wages.

Ninety-eight per cent of the household goods facilities at Cincinnati are occupied. There are no problems confronting the warehousemen of this city.

At Chicago the merchandise plants are 84 per cent occupied, this figure representing a slight increase as compared to July. Foodstuffs are being handled in large quantities. Labor is the subject of much consideration by the men of this city.

Ninety per cent of merchandise facilities and household goods are being utilized at Alton, Ill. How to make a profit on trucking is the principal problem before the industry of this city.

During August there was a 25 per cent decrease of the household goods facilities occupied, while at Canton, Ohio, there was a 25 per cent increase. Labor is the subject being much considered by the warehousemen of the latter city.

Many New Warehouses Constructed in West

WEST—The probabilities are that not over 50 per cent of the available space at Los Angeles is occupied. This is principally due to the many new warehouses which have been completed recently.

There is little change in the activities of the merchandise warehouses at Oakland, Cal., approximately 80 per cent of the facilities being occupied. Canned goods is being handled in large quantities. Labor is the subject being studied by the warehousemen of this city.

At Berkeley, Cal., the household goods plants are occupied to capacity, a condition which has existed for the past few months. Labor is the major problem in this city.

The warehousemen of Denver report that approximately 95 per cent of the merchandise facilities are occupied. High rents and the scarcity of houses are the reasons for a strong market for household goods space. For the first time since the close of the war some of the leading warehouse firms report a shortage of competent warehouse

labor and teamsters, principally due to the harvesting, threshing and other rush season's work.

About 75 per cent of the merchandise and household goods facilities are being utilized at Colorado Springs, Colo. This is a slight increase in the space occupied during August as compared with July. Household goods have been handled in large quantities both in and out of the warehouses in the past thirty days. While labor conditions are greatly improved as compared with a year ago, they are far from normal.

The Boise household goods plants are 100 per cent occupied. The increased cost of operating expenses and the shortage of labor supply are the two major problems of this city.

There is a falling market for the demands of merchandise facilities at Portland, Ore. Approximately 80 per cent of such plants are occupied. Agricultural implements are being handled in large quantities.

There has also been a slight increase in the household goods facilities of Seattle, Wash. About 85 per cent of the space at such plants is occupied. Unsatisfactory labor is the subject of greatest importance being studied by the warehousemen at this time.

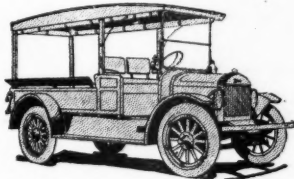
CANADA—During August there has been little change in the merchandise warehouse facilities occupied at Winnipeg, Man., and Hamilton, Ont. Approximately 90 per cent of such facilities are occupied. Foodstuffs, general merchandise, raw cotton, wool and other baled material are receiving the greatest movement. Labor conditions at Winnipeg have improved greatly since the general strike which ended June 25. The problem which the warehousemen are confronted with in this section is that the rates for cartage have not been sufficiently advanced to keep pace with the increased cost of operation, while at Hamilton the warehousemen are troubled with inefficient railroad service. At Calgary, Alberta, the merchandise facilities are occupied to capacity. This is a 10 per cent increase over July. In this city there is a shortage of experienced packers and craters.

Stewarts Haul the Load for Less

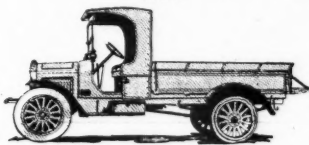
—Less in first cost

—Less in running cost

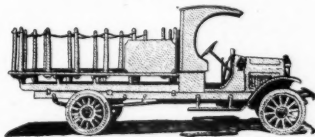
—Less in time lost



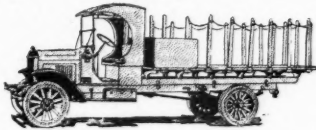
Model 11— $\frac{3}{4}$ -Ton Capacity Chassis—
Electric Starter—Electric Lights—
Magneto Ignition
\$1195



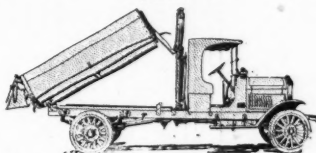
Model 8—1-Ton Capacity Chassis
\$1650



Model 9— $1\frac{1}{2}$ -Ton Capacity Chassis
\$1975



Model 7—2-Ton Capacity Chassis
\$2575



Model 10— $3\frac{1}{2}$ -Ton Capacity Chassis
\$3500
All Prices F. O. B. Buffalo

Stewart construction is simplified by eliminating all needless parts, giving you a more economical truck and saving you considerable in first cost.

This means real economy in operation—less weight to wear tires and consume gas and oil.

An example:

"We have had less trouble with our Stewart than with any other truck we ever owned. We also get more mileage per gallon of gas and our cost for repairs has been practically nothing."

(Signed)

DONLAN TRUCKING & STORAGE Co.,
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Stewart's constant reliability is proved in over 500 American cities and in 27 foreign countries.

In 5 Years No Stewart Has Worn Out

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STEWART MOTOR CORPORATION

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Write for free booklet, "HOW TO CHOOSE A MOTOR TRUCK."



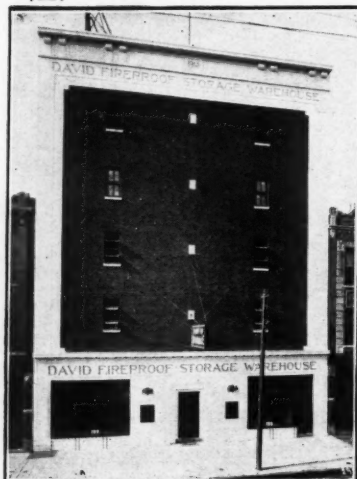
INDIANAPOLIS

Warehouse Construction



MADISON

CHICAGO



**HAVE YOU A MODERN
WAREHOUSE ?
ARE YOU CROWDED FOR SPACE ?**

DON'T LET YOUR COMPETITOR TAKE ADVANTAGE OF THE SITUATION AND OF YOU, BY BUILDING NEW STORAGE SPACE THAT IS BETTER THAN YOU HAVE TO OFFER.

YOU CAN INCREASE YOUR BUSINESS, DOUBLE YOUR EARNINGS AND GIVE YOURSELF FACILITIES THAT YOUR COMPETITOR CANNOT OFFER.

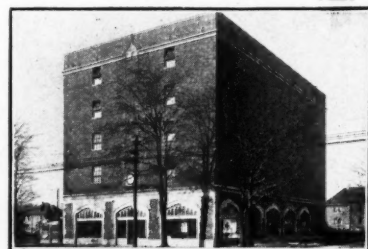
DON'T CARE HOW GOOD HIS PLANT IS, WE CAN GIVE YOU A BETTER ONE. WHY?

WE ARE STUDYING WAREHOUSE IMPROVEMENTS EVERY DAY IN THE YEAR, INSPECTING PLANTS IN EVERY SECTION OF THE COUNTRY AND WILL INCORPORATE THE BEST FEATURES OF MANY INTO ONE FOR YOU.

NO CHARGE MADE FOR ADVICE. WHY NOT GET IN TOUCH WITH US IF YOU INTEND TO BUILD NOW OR IN THE FUTURE?

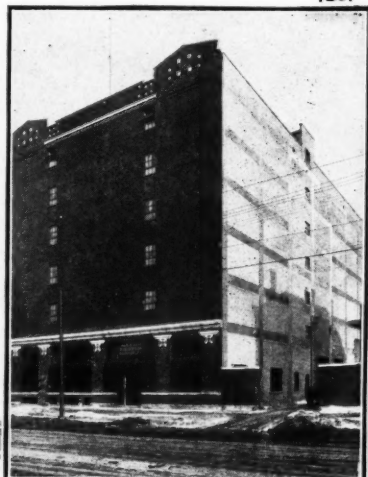
DO IT NOW

MOORES & DUNFORD
WAREHOUSE ENGINEERS
746 FIRST NATIONAL BANK BUILDING
CHICAGO ILL. U. S. A.



DETROIT

BUFFALO



Shippers' Index

A Guide to representative Transfer and Storage
Companies arranged by States and Towns

WHAT ARE YOU DOING?

THE other day a warehouseman made the voluntary confession that he has no method of getting new accounts except by circular letters to railroad traffic men and freight agents. He had no specific plans of reaching national distributors from whom he obtained his business.

Untold possibilities of increased warehousing exist. New industries are springing up each year. Peace conditions have brought about changes in warehousing which mean an increasing volume of business.

Many warehousemen have found that national prohibition has already resulted in a great increase in the warehousing of chocolates and candies and other sweets in solid and liquid forms.

The warehouseman must let the national distributor know of his warehousing capacity and general facilities for service. The national distributor must get his requirements before the warehouseman.

To-day several industries are erecting their own warehouses. Why? Why should not the warehouse industry prepare to care for the demands of warehousing from all other industries?

Why should it be necessary for an automobile dealer to put up a large warehouse which is only used two or three months in the year and idle the remainder of the year?

Why should the manufacturers of and jobbers and dealers in trucks, tires, hardware, plumbing supplies, oil, paint, stoves, refrigerators, food products, chemicals, drugs, farm implements, tools and machinery, etc., etc., be erecting warehouses of their own?

How many warehousemen are prepared to give storage for farm tractors? It is to be an enormous business. The warehouseman is the economical person to handle the business.

Would it not be more efficient for the warehouse industry to make provision to care for and distribute these surplus stocks instead of these various industries being compelled to erect their own warehouses?

The warehouse industry must keep abreast with the development of other industries.

ARE YOU DOING THE BEST YOU CAN TO LAY YOUR WAREHOUSE CAPACITY AND SERVICE BEFORE THE MANUFACTURERS AND NATIONAL DISTRIBUTORS?

Coming Events

Meetings Scheduled by Leading Associations in the Industry

Texas Warehouse & Transfer Men's Ass'n.....	Sacramento, Cal.	September
Southern Furniture Warehousemen's Ass'n.....	Jacksonville, Fla.	November
Indiana Transfer and Warehousemen's Ass'n	Indianapolis, Ind.	November 29
American Warehousemen's Ass'n.....	Cincinnati, Ohio	December 10
Massachusetts Storage Warehousemen's Ass'n.	Third Thursday of each month, Exchange Club. Annual Meeting	January, 1920
New Jersey Furniture Warehousemen's Ass'n.....	Newark, N. J. Third Wednesday of each month, Down Town Club, Newark, N. J.	
Pennsylvania Furniture Warehousemen's & Van Owners' Ass'n	Annual Meeting.....	February, 1920
Transfer & Storage Men's Ass'n of Montana	Billings, Mont.	February, 1920
Northwest Transfer and Warehousemen's Ass'n.....	Seattle, Wash.	May, 1920
Syracuse Traffic Club	Syracuse, N. Y. Third Thursday of each month. Chamber of Commerce. Annual Meeting third Thursday of January, 1920.	
Newark, N. J. Traffic Club	First Monday of each month, except November, Robert Treat Hotel, Newark, N. J.	
New York Traffic Club.....	Waldorf-Astoria, New York. Annual meeting, November 25	

BIRMINGHAM, ALA.**HARRIS TRANSFER
AND WAREHOUSE COMPANY**

(Equipped to Handle Anything)

MODERN FIREPROOF WAREHOUSE

Special Attention Given to Packing and Shipping

When shipping to Birmingham, consign goods to Harris
—he will look after your interests, also those
of your customer

Offices: CHAMBER OF COMMERCE BLDG.

BIRMINGHAM, ALA.**Wittichen Coal & Transfer Co.**

12 South 20th Street

Transfer and storage of household goods. Packing and
shipping. Forwarding and distributing agents. Heavy
Haulage, Motor Service.

BUILDING MATERIAL DEALERS

LITTLE ROCK, ARK.**WAREHOUSING
AND FORWARDING**Distributors of Pool Cars, Parcel Post Catalogs and
Merchandise**TERMINAL
WAREHOUSE COMPANY**

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All track connection

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YOU MOST DESIRE TO
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WITH**BERKELEY, CAL.****STUDENTS
EXPRESS & TRANSFER CO.**MOVING
STORING
FORWARDING

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LOS ANGELES, CAL.**BEST IN THE WEST****LOS ANGELES WAREHOUSE**When you Ship to California
Remember to Ship to**BEKINS FIREPROOF STORAGE**Prompt and Intelligent Returns,
your customers satisfiedLos Angeles
1341 Figueroa St.Oakland
22d & San PabloSan Francisco
13th and Mission Sts.**LOS ANGELES, CAL.****Shattuck & Nimmo
WAREHOUSE CO.****MOVING, STORING, PACKING
SHIPPING**MERCHANDISE DISTRIBUTION
FROM OUR OWN SPUR TRACKSMANUFACTURERS consolidating carloads
for Southern California distribution are assured
of efficient and prompt service by consigning
them in our care. Rates on request.WAREHOUSEMEN, consign your household
goods shipments to us for prompt distribution
and quick returns.**MEMBERS OF**Pacific Coast Furniture Warehousemen's Association, American
Chain of Warehouses, National Distributing Division,
Local Rotary Club and Chamber of Commerce

LOS ANGELES, CAL.

The Most Complete and Efficient Warehouse West of Chicago

—and a new six-story, fireproof, steel and concrete warehouse adds 500,000 square feet to our storage capacity.

We have the large facilities—complete in every detail—and a big, broad business policy that insures service and co-operation.

For the safe storage of goods is only part of our work. Our display rooms, selling force, office and desk space facilities coupled with our storage service enables Eastern Manufacturers to establish a branch on the Pacific Coast at a minimum expense. In fact we are acting as sales agents for some of our clients—selling and distributing their goods to the people west of the Rockies.

Having complete docking facilities for large ocean-going steamers enables our clients to conduct their business with the Orient and the western countries of South America from this Western branch office.

In the construction of our warehouse we have embodied the most modern equipment, all the latest time saving innovations and improvements; men, elevators, electric trucks, scales and chutes are provided to load and unload directly from cars into drays and trucks or into the building as desired. We are practically connected with every railroad in the city.

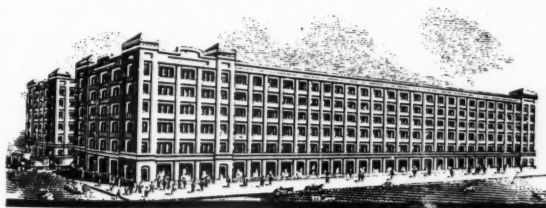
But the details of our service are given in an interesting booklet that tells what we can do for you—write for it—write now.

UNION TERMINAL WAREHOUSE CO.

7th and Central Ave.

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This is the latest addition to our storage facilities.



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New Fireproof Warehouse on Track

Storage of Merchandise and Household Goods

Distribution of Car Lots a Specialty

Every Facility for Handling Safes, Boilers and Heavy Machinery. Complete Fleet of Motor Trucks and Modern Equipment

Members { American Warehousemen's Association
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New York Furniture Warehousemen's Association
Pacific Coast Furniture Warehousemen's Association
Central Warehousemen's Club
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Southern Furniture Warehousemen's Association

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Safety Vaults for Silverware

GEORGE E. DEWEY & CO.

JOSEPH M. PELCHAT Proprietor

Local and Long Distance

FURNITURE AND PIANO MOVING

Packing, Crating and Shipping of

PIANOS, FURNITURES, CHINA

Only Fireproof Storage Warehouse in Hartford

NEW LONDON, CONN.

B. B. Gardner Storage Co., Inc.

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PIANO AND FURNITURE PACKER, MOVER AND SHIPPER

Safe Mover—Freight and Baggage Transfer—STORAGE

WATERBURY, CONN.

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Special Facilities for Moving Heavy Machinery and Safes

Storage Warehouse for Merchandise

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Let Us Handle Your Washington Business

WE WILL PLEASE YOU

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UNITED STATES STORAGE CO.

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MEMBERS:

N. Y. Furniture Warehousemen's Association
 Illinois Furniture Warehousemen's Association
 Southern Furniture Warehousemen's Association



PROMPT REMITTANCES
 Efficient and Courteous Service
 MOTOR TRUCKS
 and
 PADDED VANS
 Modern Fireproof Warehouse

ATLANTA, GA.

CATHCART

TRANSFER & STORAGE COMPANY

Moves, Stores, Packs, Ships
 Household Goods Exclusively

Office and Warehouse, 6-8 MADISON AVE.

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Warehousemen

MORROW

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COMMERCIAL STORAGE

Distributors—R. R. Trackage—Carloads a Specialty
 Household Goods Moved, Stored, Packed and Shipped
 180-184 MARIETTA STREET

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Warehousemen

Distributors

Southern Sales & Storage Co.

Markets secured for Meritorious Mdse.
 Concrete Warehouse, R. R. Trackage,
 Make our office your Southern Headquarters,
 We have an efficient Sales Force.
 13 Produce Place

BOISE, IDAHO

PEASLEY

TRANSFER & STORAGE COMPANY

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Reduced Rates on Household Goods, Automobiles
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General Merchandise Storage and Distribution
 Direct Rail and Tunnel Connection with All Trunk Lines.
 519 West Twelfth St.
 "THE ECONOMICAL WAY"

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Storage Company

Convenient to All Railroad Switches.

Modern FIREPROOF
 Warehouses for Storage of
 Household Goods

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Heated Piano Rooms
 Art Galleries
 Vaults for Valuables
 Private Compartments
 for Furniture
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 Motor Truck Service



Established 1891

Capacity 1,500,000 cu. ft.
 Low Insurance Rate.

General Office
 52nd St. and
 Cottage Grove Ave.
 Chicago

MEMBERS:

New York Furniture Warehousemen's Association
 Illinois Furniture Warehousemen's Association

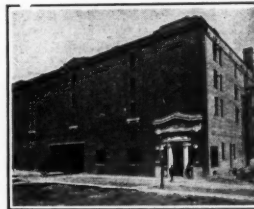
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Fireproof
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The only warehouse located on the Great North Shore with private railroad switch track at its door, serving efficiently Edgewater, Ravenswood, Sheridan Park, Rogers Park, Evanston and the Wilson Ave. district.

Consignments from all railroads bill to Wilson Ave. Switch C. M. & St. P. Ry.

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GENERAL TRANSFER—MOTOR SERVICE

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Office, 125 W. Columbia Street

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STORAGE WAREHOUSE COMPANY**

414 E. COLUMBIA STREET

W. L. Pettit, Jr., Pres. (Est. 1910) E. K. Pettit, Sec.
Transfer and Storage of Household Goods, Merchandise, New Autos,
Implements. Heavy Haulage. Motor Service. Safe Deposit Vaults.
FACTORY DISTRIBUTORS

INDIANAPOLIS, IND.

We Have the Very Best of Equipment for Handling
Heavy Machinery, Boilers, Engines, Tanks
Vaults and Safes for Erecting Smoke Stacks



INVESTMENT \$200,000.00

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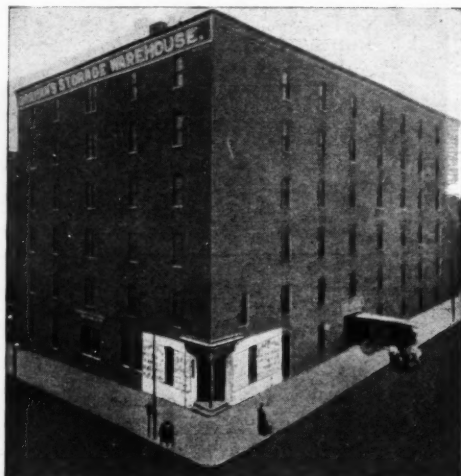
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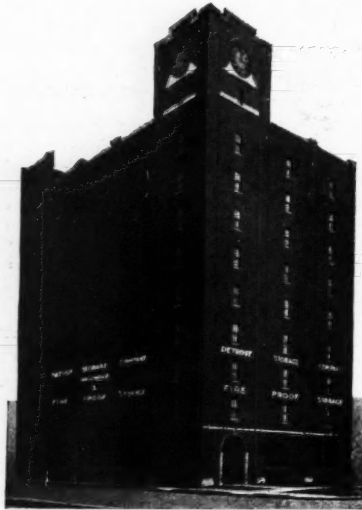
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Our modern warehouse combined with our efficient organization is thoroughly equipped with every facility for the speedy and economical handling of your goods in the Great Northwest.

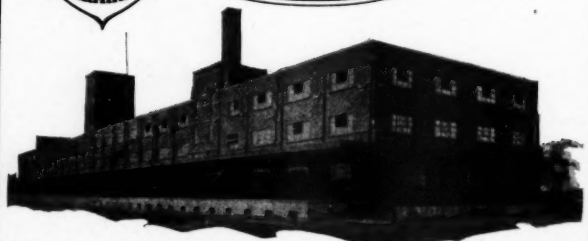
Our loading platform connected with the East Hennepin Joint Freight Station permits direct handling and distribution of all less-than-carload freight to the NINE RAILROADS of Minneapolis through this single freight station without drayage—a facility not found elsewhere west of Chicago.

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Nine Freight Depots; One Mile of Platforms
More than 250,000 Square Feet of Storage
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Six warehouses covering over one city block. 200,000 square feet of floor space. Four warehouses equipped with automatic sprinkler systems.

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We have studied the problems of the national distributor of manufactured articles and merchandise and have both the experience and facilities to care for business of this kind in a way that will satisfy the most critical.

Write us about the goods you have to be distributed in this territory and we shall be glad to quote prices for delivery, storage or reshipping.

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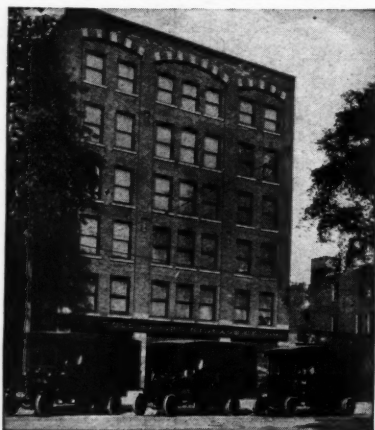
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 Storage, Moving, Packing and
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 Every facility for the prompt and efficient
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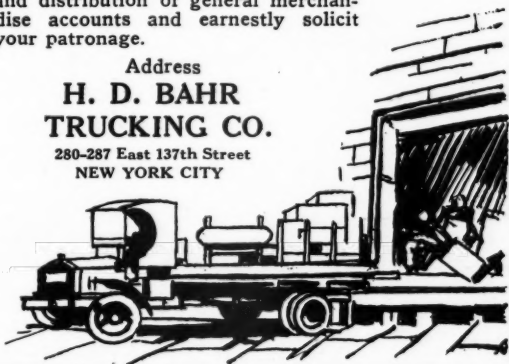


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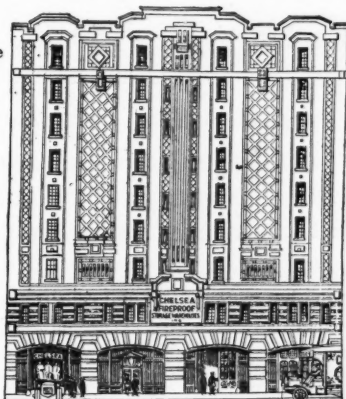
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 Household Goods Stored and Shipped. Motor Service.

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SYRACUSE, N. Y.



CONSIGN your Syracuse shipments of merchandise or Household Goods to us. Railroad siding in connection with our warehouse.

Mail bills of lading direct to us. We make no charge for collections and remit promptly.

A big transfer job does not stagger us. We own and operate a fleet of auto trucks to facilitate modern and reliable service.

Yours for Co-operative Service

SYRACUSE FURNITURE & FORWARDING CO., Inc.

270-272 James St., Syracuse, N. Y.

STORAGE PACKING SHIPPERS AGENTS

UTICA, N. Y.

Consign Utica Shipments

to

JONES-CLARK TRUCKING AND STORAGE CO., Inc.

127-135 Hotel St.

SPECIAL ATTENTION given to Merchandise Distribution and Pool Car Shipments. Storage of Merchandise, Furniture, New Autos and Machinery.

U. S. C. Bonded

Bill Via N. Y. C., D. L. & W., N. Y. O. & W.

UTICA, N. Y.

UTICA**CARTING & STORAGE COMPANY**

Storage, Trucking, Forwarding,
Shipping, Rigging, Transferring,
Distributing, Checking, Packing

MOTOR VANS FOR LONG DISTANCE

Members New York and Illinois Associations.

RALEIGH, NORTH CAROLINA

Carolina Storage & Distributing Co.

Raleigh

North Carolina

We store, reship and distribute all classes of freight. Modern brick warehouses located on railroad tracks. Pool car distribution a specialty. Being centrally located, reaching a population of over 1,500,000 within a radius of 100 miles, and having excellent railway service, Raleigh is most logical distributing point for this territory.

CANTON, OHIO

CUMMINS STORAGE COMPANY

STORAGE, DRAYING, PACKING AND
FREIGHT HANDLING A SPECIALTY

Unsurpassed Facilities for Handling Pool Cars

310 EAST NINTH STREET

CLEVELAND, OHIO

SERVICE IS THE THING

For You and Your CLEVELAND Customers

**LET US SERVE THEM AS
THEY SHOULD BE SERVED**

Our Equipment—Fireproof and Non-Fireproof Storage. Motors and Horse-Drawn Vans.

Our Organization is complete and is more than ample for the largest and most difficult proposition.

We Conserve Your Interests

THE CENTRAL STORAGE WAREHOUSE CO.

1843 East 55th Street

5601 Hough Avenue

CLEVELAND, O.

We are Cleveland distributing agents for twenty-seven well known concerns. Why not let us handle your account?

Four large storage warehouses. Siding connections with Nickel Plate and Erie railroads right into buildings. Free switching from and to all roads. Our own team track for direct car-side distribution. Private wharf for river and Great Lakes traffic.

Ideally located for serving the downtown and industrial districts.

Modern equipment for the prompt and economical handling of all descriptions of merchandise.

Get our quotation on your proposition

**The International Transportation Company
Warehouse Department**

General Offices: The Guardian Building
CLEVELAND, OHIO

Long distance telephones: Main 7025, Central 39.

CLEVELAND, OHIO

7724 DETROIT AVENUE

CLEVELAND, OHIO

**The Lincoln
Fireproof Storage Company**

5660-5704 Euclid Avenue

Adjoining Penn. R. R. Euclid Avenue Freight Station and Team Tracks

CLEVELAND, OHIO

**NEAL
FIREPROOF STORAGE COMPANY**

7208-16 EUCLID AVENUE

Modern Fireproof Buildings

Service Complete

Carload Consignments Solicited

CLEVELAND, OHIO

THE

REDHEAD STORAGE Co.

2041 E. 105th STREET

MOTOR VAN SERVICE

Fireproof Warehouse
Household Consignments Solicited
Satisfactory Service Assured

Members I. F. W. A.

N. Y. F. W. A.

CINCINNATI, O.

STORAGE

Fireproof and Non-Fireproof

Business Established in 1867 and built up by

A SERVICE THAT SATISFIES

Prompt Deliveries by Motor
Complete Transfer Facilities

Member
of
New York Furniture
Warehousemen's
Association
and
Illinois Furniture
Warehousemen's
Association

**FRED
PAGELS**

937 West 8th St.

**CINCINNATI, OHIO**

We are equipped to handle carloads and less than carloads for out-of-town shippers. Warehouse located on Pennsylvania Railroad, where we can store your merchandise for future orders.

The Wallace Transfer & Forwarding Co.
222 & 224 East Front Street

**Pick Your
Consignee**

from the companies listed in this section—they are the "live wires" of the field and will handle your shipments promptly and efficiently.

It is also worth your while to earn their reciprocity.

CINCINNATI, OHIO

"STACEY FIRST"



SERVICE
FIREPROOF AND NON-FIRE-
PROOF WAREHOUSES

MODERN MOTOR
VAN EQUIPMENT

RELIABILITY

Established 1891 Investment \$250,000
Your interests carefully protected

STACEY STORAGE CO.
2333 Gilbert Avenue

MANSFIELD, OHIO

THE COTTER
TRANSFER AND STORAGE CO.
FIREPROOF AND NON-FIREPROOF
WAREHOUSES

Furniture and Merchandise Storage

Motor Trucks Heavy Hauling Distributing

The Cotter System

Members New York, Illinois and American Warehousemen's Assns.

SANDUSKY, OHIO

The Island & Terminal Transfer Co.

JOHN A. MILLOTT, MGR.
TRANSFER, DRAYAGE and STORAGE
New Three-story Fireproof Building, also Non-fireproof
Buildings

MERCHANDISE AND HOUSEHOLD GOODS
Complete Distributing Facilities Steamboat Landing and
Railroad Siding

SPRINGFIELD, OHIO

Bill All Shipments for Springfield, Ohio, to

WAGNER
FIREPROOF STORAGE & TRUCK CO.

Siding on Pennsylvania Lines

Complete Facilities for Distribution of Pool Car Shipments
Moving—Packing—Shipping—Storing
Household Goods and Merchandise

COLUMBUS, OHIO

THERE IS
NOTHING TOO LARGE
NOR TOO SMALL
FOR US TO HANDLE

THE BUCKEYE
TRANSFER & STORAGE COMPANY

COLUMBUS, OHIO

THE
KUTSCHBACH-McNALLY Co.

Complete Facilities for Storing and Forwarding
HOUSEHOLD GOODS and MERCHANDISE

Siding on Pennsylvania Tracks

Manufacturers' Distributors MOTOR Equipment
Member Interstate Warehousemen's Association

DAYTON, OHIO

THE LINCOLN STORAGE Co.
"Fireproof"

BIG 4 TRACK IN BUILDING. Members N. Y. & I. F. W. A.

313-315 EAST FIRST STREET

A. B. Compton, Vice-President

**If Your City Isn't
Represented Here**

Put it on the shippers' map by
inserting your card in this space.

TOLEDO, OHIO

DEPENTHAL
TRUCK & STORAGE COMPANY
108 SUMMIT STREET

Member of New York, Illinois, and Southern Furniture
Warehousemen's Associations

TOLEDO, OHIO

THE TOLEDO
MERCHANTS' DELIVERY COMPANY

128 SUMMIT STREET

AUTO SERVICE—FIREPROOF STORAGE

Household Goods and Automobiles Moved, Packed, Shipped and
Stored. Safes, Boilers, Machinery and Smokestacks Moved.

100% SERVICE

Reference: Second National Bank, or any bank in Toledo

YOUNGSTOWN, OHIO



Local and Long Distance Hauling
Manufacturers' Distributors Carload Distribution

ZANESVILLE, OHIO

**ALBERT ADAMS
STORAGE AND TRANSFER CO.**
25-29-33 Ninth St.

Merchandise and Household Goods. Carload Distribution.
Manufacturers' Distributors. 50,000 Square Feet of Floor Space

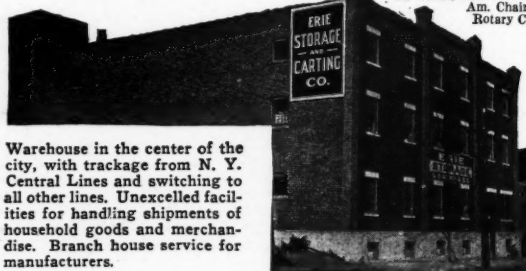


ERIE, PA.

**ERIE
STORAGE & CARTING COMPANY**

1502 Sassafras Street

Members of A. W. A.,
I.F.W.A., N.Y. F.W.A.,
Am. Chain &
Rotary Club



Warehouse in the center of the city, with trackage from N. Y. Central Lines and switching to all other lines. Unexcelled facilities for handling shipments of household goods and merchandise. Branch house service for manufacturers.

CLINTON, OKLA.

100 miles from any other jobbing center

MANUFACTURERS

Should investigate Western Oklahoma territory.
No better point for distribution.
No better facilities than ours.

GOODNER-KRUMM-FARR CO.
All kinds Transfer and Storage

OKLAHOMA CITY, OKLA.

Fireproof
Warehouses for
Household
Goods and
Merchandise.

Members of I. F. W. A.,
New York, American
Chain, Central, South-
ern, Pacific Coast
Warehousemen's Asso-
ciation.

**O.K. TRANSFER & STORAGE CO.**

A. C. WEICKER, President

HARRISBURG, PA.

Pool Cars

Received-Checked-Distributed
and

Forwarded in Less Than Car Lots

Penna. RR Harrisburg Storage Co.
Sidings Harrisburg, Pa.

HARRISBURG, PA.

MONTGOMERY & CO.

STORAGE WAREHOUSES

Merchandise Storage—Transferring—Forwarding

Direct Track Facilities

Pool Car-Distribution

Members A. W. A. and American Chain of Warehouses

TULSA, OKLA.

Tulsa Warehouse Company

Inc. \$200,000

Our business is your business in Tulsa.
We store your merchandise.
We look after your shipments.
We collect your drafts and accounts.
We distribute your samples.
We make you reliable credit reports.
We trace your cars and save you demurrage.
We furnish offices for rent to our patrons.
We loan you money on your warehouse receipts.
We give you real service promptly.
If there is anything else we can do for you, our services are at your command.

ORRA E. UPP, President and Manager.

LANCASTER, PA.

KEYSTONE STORAGE COMPANY

STORAGE—DISTRIBUTORS—FORWARDERS

Merchandise and Household Goods

MANUFACTURERS' DISTRIBUTORS MOTOR SERVICE

Siding on P. R. R. and P. & R.

OIL CITY, PA.

**CARNAHAN
TRANSFER & STORAGE COMPANY**

R. C. LAY, Proprietor

Piano Moving a Specialty

Distributing and Forwarding Agents; Packing
Fireproof Warehouse

PHILADELPHIA, PA.

OUR HOBBY

is the distribution of goods for
National Merchandisers

North Philadelphia Storage Co., Inc.

SHIBE BALL PARK

**If Your City Isn't
Represented Here**

Put it on the shippers' map by
inserting your card in this space.

PHILADELPHIA, PA.

ADVANCE STORAGE COMPANY 13-15 N. 59th STREET

SAMUEL S. JOHNSTON, Manager
WAREHOUSE 500 LOADS CAPACITY

Our motor trucks are operated by careful men who are thoroughly experienced in handling furniture and pianos.

We are in a position to guarantee you satisfaction and solicit your order.

PHILADELPHIA, PA.

Columbia Ave. Storage Company

1511 to 1519 Columbia Avenue

EXCLUSIVELY HOUSEHOLD GOODS

Motor Equipment

Moving

Packing

Shipping

Operated by the

TERMINAL WAREHOUSE AND TRANSFER CO.

Delaware Avenue and Green Street

GENERAL MERCHANDISE

Forwarding and Distributing

9 Warehouses. 16 Acres of Floor Space. Trackage Facilities for 17 Cars.

Members } American Warehousemen's Association
 } American Chain of Warehouses

PHILADELPHIA, PA.

ATLAS STORAGE WAREHOUSE

Office and Warehouse:
Market and Thirty-seventh Streets,
Philadelphia, Pa.

Member Pennsylvania,
New York, Illinois,
and Southern Furniture
Warehousemen's Associations

Service is the measure of the difference between good work and poor.

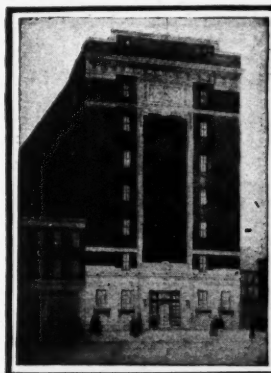
Service of the right sort in the storage, moving, packing and shipping of household goods and office furnishings exclusively, constitutes our business.

As it relates to shipments consigned to us, we interpret service to require safeguarding the interests of the shipping warehouse, prompt remittance of collections, fair charges and treatment to customers, and to all—courtesy.

We solicit your Philadelphia shipments.

For West Philadelphia and general city delivery consign C. L. and L. C. L. shipments—P. R. R., 30th and Market Sts. Station; B. & O. R. R., 24th and Race Sts. Station; P. & D. Rwy., 23rd and Arch Sts. Station.

PHILADELPHIA, PA.



20th CENTURY

THE LAST WORD IN WAREHOUSES

A solid concrete building. Best location in Philadelphia. A fleet of Pierce Arrow enclosed vans. We operate a large garage adjoining our warehouse capable of accommodating the largest van built. Try us when your van is in Philadelphia. All collections through our office promptly remitted. Members New York Warehousemen's Association and Pennsylvania Warehousemen's Association.

20th CENTURY STORAGE WAREHOUSE CO.

3120-22-24-26-28-30 MARKET STREET
(Opposite West Philadelphia Station P. R. R.)

PHILADELPHIA, PA.

PENN STORAGE & VAN COMPANY

2136 MARKET STREET

"Let Wightman do it"

If Your City Isn't
Represented Here

Put it on the shippers' map by
inserting your card in this space.

PHILADELPHIA, PA.



Our large fleet of motor trucks enables us to render quick and efficient service to your patrons.

We are accessible to all depots and suburbs of our city. Our warehouses are within two blocks of North Philadelphia Station of the Pennsylvania Railroad and the 12th and York Streets Station of the Philadelphia & Reading or the Baltimore & Ohio.

Collections through our office will assure prompt returns.

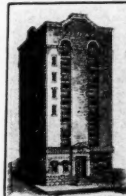
Fireproof and Non-Fireproof Warehouses

Miller North Broad Storage Co.

2709-2721 North Broad Street

PITTSBURGH, PA.

SERVICE TO THE CORRESPONDENT



CONSISTS in giving the correspondence of those we represent prompt acknowledgment, safeguarding their interests, mailing checks in settlement of accounts, and furnishing final reports of transactions.



THIS service also includes an element of importance:—the handling of shipments upon arrival in a manner conducive to joint customer's approval, whose future business we are always eager to secure.



Ship via Pennsylvania to East Liberty Station, (Pittsburgh, Pa.)

Established 1889

HAUGH & KEENAN
STORAGE AND TRANSFER CO.
CENTRE AND EUCLID AVENUES

PITTSBURGH, PA.



Fireproof
I will grow four
more stories



Garage & Stables

BLANK'S
Transfer & Storage Co.

Moving, Packing and Storage

MOTOR TRUCK SERVICE—SEPARATE ROOMS FOR STORAGE



Fireproof

6344

Penn

Ave.

E E



Fireproof

PITTSBURGH, PA.

HOEVELER
WAREHOUSE COMPANY
MOVERS AND STORERS

750 MILLVALE AVENUE

PITTSBURGH, PA.

MURDOCH

STORAGE & TRANSFER COMPANY

General Office, and Warehouses

546 NEVILLE STREET
PITTSBURGH, PA.

Branch Warehouse, Wilksburg, Pa.

Murdoch Means Service

PITTSBURGH, PA.

HASLEY BROTHERS
TRANSFER AND STORAGE

939 So. Canal St., N. S.

MOVERS, PACKERS, SHIPPERS OF HOUSEHOLD GOODS
FIRE PROTECTED STORAGE—MEMBERS A. W. A.

PITTSBURGH, PENNA.

J. O'NEIL EXPRESS & STORAGE
N. S. PITTSBURGH, PENNA.

Furniture and Piano Moving a Specialty. General Hauling.

NEW FIREPROOF STORAGE HOUSE
Separate Rooms

PITTSBURGH, PA.

Ship Your Cars to Us for
Distribution

Pool Cars Received, Checked, Dis-
tributed, Reshipped in Less Than
Car Lots

PITTSBURGH DISTRIBUTING CO.
PITTSBURGH, PA.

PITTSBURGH, PA.

Building 100 x 125—8 Stories Front
9 Stories Rear—Garage in Basement—Just Completed



**Shanahan
Transfer & Storage Company**

Fireproof Storage for Household Goods.
All Separate—1200 Fireproof Rooms.
Furniture Moved and Packed for Shipment.
Motor Vans, Trucks. Special Heated Piano Floor
Fifth Ave. at McKee Place
(Next Door to You)
Established 1865. Over 50 Years

PITTSBURGH, PA.

WEBER
EXPRESS & STORAGE COMPANY
GENERAL HAULING
Moving, Packing and Storing of Furniture and Pianos
4 6 2 0 HENRY STREET

SCRANTON, PA.

"The World Moves—So Does Post"

R. F. POST
ESTATE

44 LACKAWANNA AVENUE
Freight, Furniture, Pianos, Safes, Machinery, Boilers, Stacks, etc.
DRAYMAN, RIGGER, AND WAREHOUSE

**SCRANTON, PA.
WILKES-BARRE, PA.**

Established 1894.

"He Profits Most Who Serves Best"

(Rotary)

**The Quackenbush
Warehouse Co.**

Incorporated

Warehousing of every description. Storing, Packing
Carting, Shipping. R.R. Siding. Manufacturers
Distributors

Correspondence Solicited

Wilkes-Barre, Pa.

Scranton, Pa.

PROVIDENCE, R. I.

CADY MOVING & STORAGE CO.

STORAGE WAREHOUSES
Household Furniture and Pianos
Packing, Crating and Shipping.
62 to 70 Dudley Street.

CHATTANOOGA, TENN.

**THE CHATTANOOGA
TRANSFER & STORAGE CO.**

Fireproof Warehouse

Furniture Merchandise
Packed Stored Shipped
Heavy Hauling

Motor and Horse Drawn Equipment

NASHVILLE, TENN.

E. M. BOND
FIREPROOF STORAGE CO.
HOUSEHOLD GOODS AND MERCHANDISE
Modern Fireproof Building
Private Siding With All Rail Connections.

EL PASO, TEXAS

WESTERN
TRANSFER & STORAGE COMPANY
220-26 S. STANTON STREET
ONLY FIREPROOF STORAGE IN EL PASO
Forwarders and Distributors—Trucking of all kinds—Distribution
Cars a specialty—Warehouse on Track

**If Your City Isn't
Represented Here**

Put it on the shippers' map by
inserting your card in this space.

FORT WORTH, TEXAS



Binyon-O'Keefe Fireproof Storage Company

Est. 1875

Your consignments to Fort Worth will receive intelligent service. We have a siding on the Rock Island Railroad with free switching from all lines. Fireproof warehouse, 90,000 sq. ft., yard storage, factory distributors.

Members of

Illinois Furniture Warehousemen's Association
Southern Furniture Warehousemen's Association
Central Warehousemen's Association

SPOKANE, WASH.

McALLISTER WAREHOUSE COMPANY

W. E. Burke, Manager

Manufacturers' Agents
and Jobbers, Regular and
Cold Storage Space.

We give you personal service, solicit business and call upon your trade either in Spokane or in tributary territory.

Carloads received, stored
and distributed.

Your account is desired.

SAN ANTONIO, TEX.

Established 1880

FREIGHT

AUTO SERVICE

STORAGE

OFFICIAL DISTRIBUTORS MERCHANTS' TRANSFER CO.

SAFETY

COURTESY

SERVICE

WACO, TEXAS

MASON

TRANSFER & STORAGE COMPANY

217-219 JACKSON STREET

Merchandise Storage, Forwarders and Distribution Trucking
of all kinds. Warehouse on track. 7 Denby Trucks

WACO, TEXAS

Weathered Transfer and Storage Co., Inc.

Modern Warehouse Facilities—Trackage on all roads

100,000 SQUARE FEET STORAGE SPACE

We do pool car distributing, moving, packing, shipping,
storage, long distance hauling by trucks.

PETERSBURG, VA.

Southern Bonded Warehouse Corp.

BONDED STORAGE

Distributors

Motor Truck Service

Private Railroad Sidings

Our Negotiable Receipts Acceptable at all Banks

TACOMA, WASH.

PACIFIC STORAGE and TRANSFER CO., Inc.

Merchandise and Furniture Storage

Distributors and Forwarders

Merchandise and Furniture

SEND YOUR POOL CARS IN OUR CARE

Auto Truck and Transfer Service

N. P. RY. SIDE TRACKS

BROADWAY AND 17th STREET



YAKIMA, WASH.

MILLER & LENINGTON

CONTRACTORS

DISTRIBUTING and FORWARDING AGENTS

TRANSFER—STORAGE—WAREHOUSING

Motor Trucks and Team Equipment for All and Every Kind of
Hauling

SHIP IN OUR CARE and let us be "At your service with best
of service"

Office: 10 East A Street

Sidney Hotel Bldg.

'Phone 571

YAKIMA, WASH.

J. J. Crawford

W. E. Norton

**Yakima Transfer Co.
STORAGE**

Auto Trucks and Moving Vans

Office and Warehouse:
11 SOUTH FIRST AVENUE

Freight, Baggage and Piano Moving a Specialty
New Warehouse for General Storage

**Merchandise Storage, Transferring, Packing
and Forwarding — Pool Car Distributing —
Direct Track Facilities.**

We specialize in
Furniture Pads and Covers

Write us today for prices
and we will submit samples.

Prompt shipments and perfect satisfaction guaranteed.

TOLEDO CANVAS PAD COMPANY

2014 Adams Street

TOLEDO, OHIO

A TRIUMPH is your
BUCKEYE SILL PIANO TRUCK

says an owner of four of them
SELF-LIFTING PIANO TRUCK CO., Findlay, O.



End
Truck
Covers

Straps

G. W. Jones Lumber Co.

807 Lumber Exchange Building
CHICAGO

Manufacturers of
CRATING AND BOXING LUMBER OF ALL KINDS

We refer you to the leading warehouses in
Chicago as to the quality of stock we ship.

Wholesale Prices

Stock Guaranteed

TORONTO, CANADA

CANADA



HOWELL CONSOLIDATED CAR SERVICE

Bridges the gap between
Eastern and Western Canada

Manufacturers competing in the Canadian
market should study the unique features of the
problem of distribution in Canada.

Canada is a country of long distances between
East and West. Again, the Canadian Freight
Classification differs in many important respects
from those in effect south of the border.

We have studied the problems in this connec-
tion and the results of our study and experience
are at your disposal. Our consolidated Car
Service reduces freight charges by from twenty
to fifty per cent and eliminates delay in transit.
Carloads go forward regularly from Toronto to
all the principal points in Western Canada.

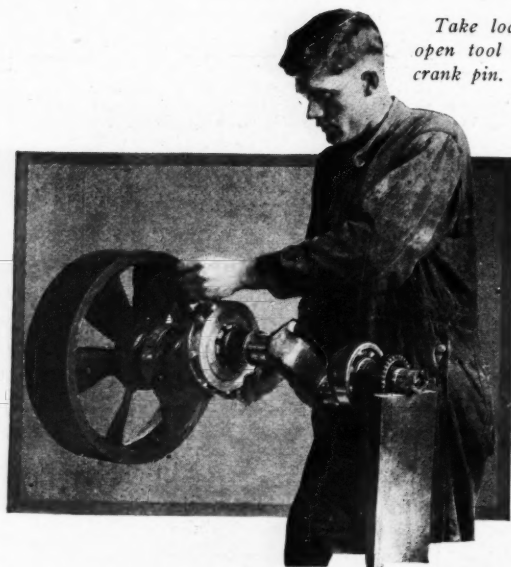
Commodities shipped include Food Products,
Confectionery, Groceries of all kinds, Wooden-
ware, Hardware, Paints and Varnishes, Paper,
Stationery, Drugs and Toilet Preparations.

By warehousing with the Howell Warehouses
and using Howell Consolidated Car Service you
can cover Canada from coast to coast, thus con-
solidating your stock and reducing detail and
overhead expense.

The Howell Warehouses, Limited

311 King Street, East
TORONTO, ONTARIO

(Member American Warehousemen's Association)



Take lock off handle,
open tool and place on
crank pin.



Close lock and adjust
to size with spanner
wrench. Now ready for
grinding.



Mr. Peters Has Taken The Time, The Labor And The Risk Out Of Crankshaft Grinding

*You can do the work now—a perfect
job—in a few minutes' time.
No lathe. No skilled mechanic.*

ANY man who is intelligent enough to follow
a few plain directions can easily operate this
wonderfully simple and efficient crankshaft grinder.

Every machinist is familiar with the effect
which the constant thrust of a gasoline motor
has upon the crankshaft.

In time a "flat" side develops, the shaft gets
out of "round" and the journals do not seat
snugly. Then develops a bothersome "knock."

Any mechanic can now restore the bearing
seats of a crankshaft to a true round surface
as quickly and skillfully as a highly trained
mechanic. He needs no lathe—simply a vise
or clamp to hold the shaft—and when he has
adjusted the tool to the dimensions of the
crank pin, which takes but a moment, he is

all set to do a first-class job and have it over
within a few minutes.

Mr. Peters spent several years bringing this
remarkable grinder to perfection—and the re-
sult is a time-saver, labor-saver and work-
improver that is destined to become an ab-
solute necessity in every progressive garage
and repair shop. Takes any crankshaft up to
and including $2\frac{1}{2}$ inches.

Peters' Crankshaft Grinder is made of
aluminum and high-speed steel, and will last
for years. The price is \$75—a sum you will
get back over and over again in better, quicker
and more efficient service.

No Lathe Required
ADJUSTABLE

Will take any crankshaft
up to $2\frac{1}{2}$ inches in diam-
eter. A necessity in
every garage and repair-
shop. Price, complete,
\$75.00.

ALUMINUM BRAZING SOLDER COMPANY
440 Montgomery Bldg. Chester, Pa.

PETERS'

Crank Shaft Grinder



Pneumatics Save Money for This Truck Owner

"It is interesting to note the comparative records of two of our 2-ton trucks, both $3\frac{1}{2}$ years old. One is equipped with solid tires and one with Goodyear Pneumatic Cord Truck Tires, 38 x 7 in front and 40 x 8 in the rear. Two of these pneumatic tires are still in use after $3\frac{1}{2}$ years' service.

"On the solid-tired truck the motor has been overhauled three times and at frequent intervals it is necessary to tighten up the nuts that shake loose.

"On the pneumatic-tired truck the motor has never been overhauled; not a cent for repairs has been spent on the motor or truck—yet it is in 75% better mechanical condition than the solid-tired truck.

"In a recent comparative test of one month's duration, the pneumatic-tired truck covered 600 miles and the solid-tired truck covered 400 miles. During the test three gallons of oil was used by the truck equipped with solids as against one quart used by the truck equipped with pneumatics. Also the pneumatic-equipped truck showed a 25% saving in gasoline, although it made more stops in covering 200 more miles.

"Our experience in using Goodyear Pneumatic Cord Truck Tires is highly satisfactory and we cannot recommend them too highly."

— The Harris Transfer Co. of Indianapolis, Ind.

LITTLE need be added. The facts as presented by Mr. Harris show that the truck equipped with Goodyear Pneumatic Cord Truck Tires does approximately 50% more work than a similar truck equipped with solid tires.

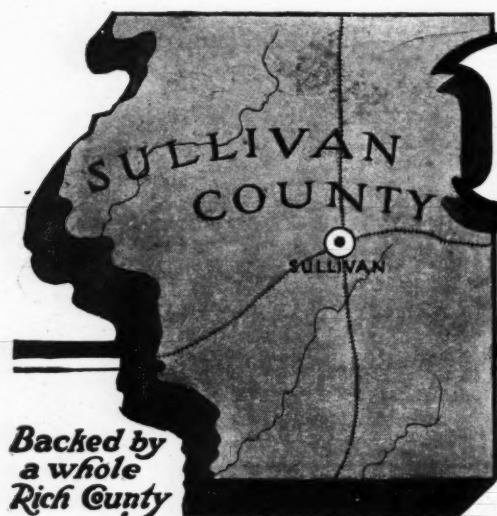
Yet while doing more work this Pneumatic-shod truck averages 25% less gasoline consumption and much less oil. The motor has never been overhauled and not a cent has been spent in repairs.

So definite are the advantages that these tires produce, that it is more than probable that you can secure equally satisfactory results by equipping your own truck with these big easy-rolling Goodyears.

However, to determine accurately whether Goodyear Pneumatics can be used profitably on your truck, it will only be necessary to go or phone to the nearest Goodyear Truck Tire Service Station.

THE GOODYEAR TIRE & RUBBER COMPANY, AKRON, OHIO

GOODYEAR
AKRON



**Backed by
a whole
Rich County**

MUTUAL

"America's

An "All Star" Truck

Like an "All-Star" theatrical performance, the MUTUAL TRUCK is an aggregation of units that have won a place and a name for themselves at the very top of the profession.

In making our selection of the units for the MUTUAL we closed our ears to the noise of mere popular advertising; and, by careful comparison, measurement and test, of the rival makes of engines, clutches, transmissions, universals, frames, axles, radiators, steering gears, magnetos, carburetors, wheels and all other parts, chose the ones that the great majority of the best posted authorities on the "inside" agreed with us were the only ones that could be used for a truck that would dare call itself—"America's Greatest Truck."

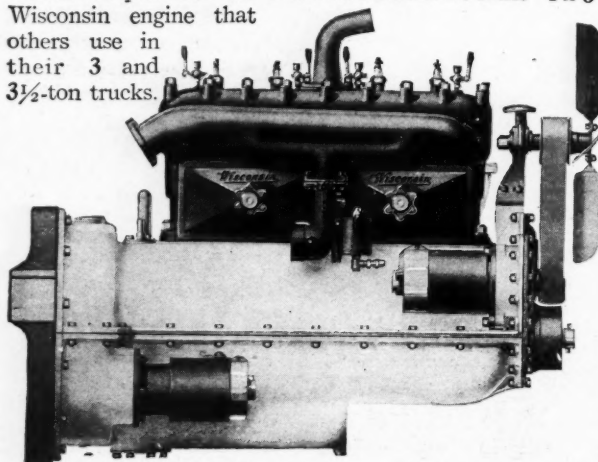
MUTUAL SUPER SPECIFICATIONS (TWO TON)

America's Greatest Truck Engine

From every standpoint—design, material, construction, extreme care in manufacture and inspection, the *Wisconsin Engine* is recognized as indisputably America's Greatest Truck Engine.

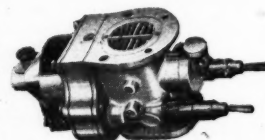
There are several very good "second best" truck engines on the market, any one of which is good enough for an ordinary truck; but there is only one engine that is good enough for "America's Greatest Truck"—and that engine is the "Wisconsin"—first in gas economy, endurance, reliability and all-round engine efficiency.

And we put into our 2-ton MUTUAL the same 4 x 6 Wisconsin engine that others use in their 3 and 3½-ton trucks.



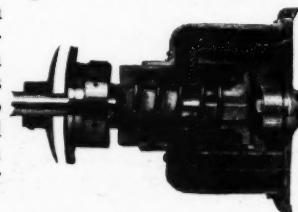
America's Greatest Truck Governor

The Duplex Company's Duplex (not Simplex) is the only one that controls road-speed independent of motor-speed. It makes the driver obey the owner's orders always and everywhere; it is, in fact, an "automatic chauffeur," that adds years of life to the machine by guarding it against abuse. It is vastly more accurate than throttle control; makes a 20% increase in gasoline efficiency by use of a patented "grid" valve instead of the butterfly type. It proportions fuel-feed to suit road conditions, delivers power as needed, and insures a quick get-away. The Duplex delivers more power on hills and bad roads; increases average road speed 20-30% and acts as an automatic safety brake on steep down grades. Incidentally it costs us 2 to 5 times as much as other makes and types.



America's Greatest Truck Clutch

The Hele-Shaw, Universal No. 5, oil-immersed, multiple-disc clutch costs us twice as much as the next best, and from three to four times as much as clutches used on the majority of trucks. It gives a smooth, silent but positive pick-up; a firm final grip; and saves the engine and entire mechanism (including tires) the ruinous "racking" that cheap clutches cause. You will tolerate no other clutch on any truck you own after you use the Hele-Shaw.



MUTUAL

Greatest Truck

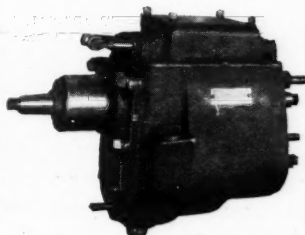
2-3½-5 TON

America's Greatest Truck Universal

Could it be anything but a Spicer? And we use three Spicer joints in the shaft and a fourth in the universal clutch itself. Here, too, we put into our 2-ton Mutual a size used for 3 and 3½-ton trucks by all other makers who use the Spicer.

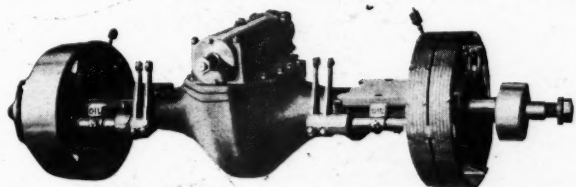
America's Greatest Truck Transmission

"Fuller" of course; and their model "G5" selective; with removable plates, to permit attachment of mechanical hoist and tire pump. Four speeds forward and reverse. A simple sturdy, dependable gear-set used by leading high-priced truck makers on their 3 and 3½-ton models.



America's Greatest Truck Axles (Ball Bearing)

To insure the highest efficiency, we adopted the Sheldon Worm Gear Axle—*first* because both the worm thrust and radial loads are taken by ball bearings, which offer less friction than any other type of bearing. *Second*—because it is of the semi-floating type, which has the advantages of greater simplicity, less weight, greater carrying capacity, greater resistance to side shocks, lower maintenance cost and greater ease of removing wheels for



inspection. The more deeply versed in scientific automotive engineering a man is, the more emphatic will be his declaration that the Sheldon is America's Greatest Truck Axle.

Sheldon Ball bearing steering knuckle type of Front Axle was adopted as a matter of course.

And These, Too, Are Greatest:

Parish and Bingham pressed steel Frame; extra heavy type. Length 224 inches.

Mather Chrome Vanadium Springs.

Smith Metal Wheels for solid tires—regular equipment and not a costly extra.

Dayton Steel Wheels for pneumatic tires.

Goodyear or Firestone Tires; 36 x 4 solid for front wheels and 36 x 8 for rear; or same makes of Pneumatic tires as an option, at an extra cost.

Ross Steering Gear—with 20 inch wheel (not 17-18 inch).

Perfex Radiator, worth a big story in itself.

Bosch Magneto—type ZR4 with impulse-starter. Dust proof and water proof.

Stromberg Carburetor; type M.

Bound Brook Oilless Bushings; throughout.

Weather-tite Cab—fit for a King; regular equipment.

Powell Muffler—12 sections. Remarkably silent.

Electric Steel Castings at vital points, where others use Malleables.

25-Gallon Gasoline Tank

Special 2½-gallon Reserve Lubricating Oil Tank.
Wheel base—150 inch.

Specifications on the Mutual 3½-ton and 5-ton are equally "Great."

Buy One "Mutual"

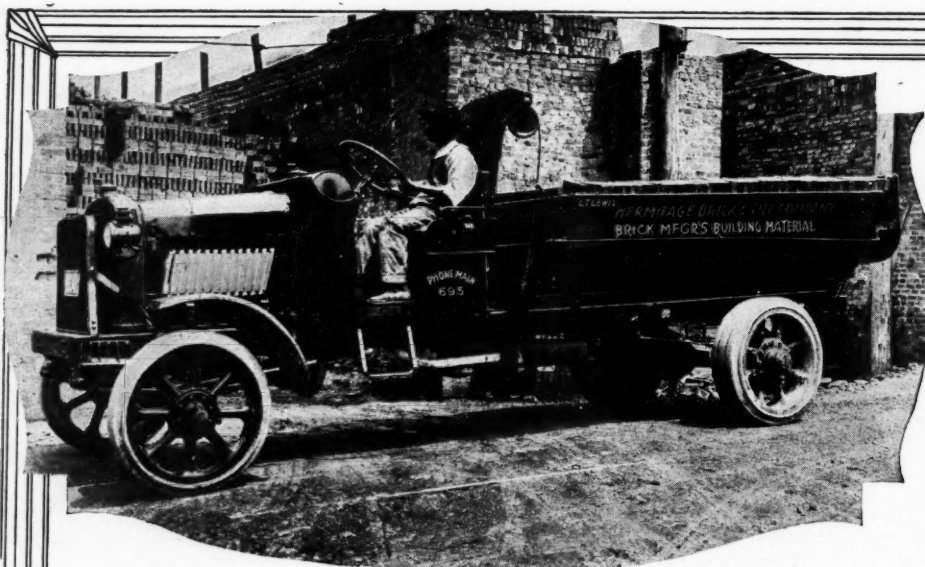
Don't quibble about the price; but take our word for it—on this one purchase—that we give more for the money, in actual cost to us, than you can get in any other truck.

Put your "MUTUAL" into the hardest service you have, and keep a record of its ton-mile performance—all costs counted.

Do this, and all your future purchases will be MUTUALS.

We rise or fall on this test; and remember, we have vastly more at stake than you.

MUTUAL TRUCK COMPANY, SULLIVAN, INDIANA, U. S. A.



The Hermitage Brick & Tile Company, of Nashville, Tennessee, finds the Denby best fitted to handling building materials.

for cheaper transportation, everywhere

DENBY MOTOR TRUCKS

In congested city traffic—on the ranches of the west—in the United States and in the out-of-the-way places of the world—everywhere, Denby trucks are giving dependable transportation at minimum cost.

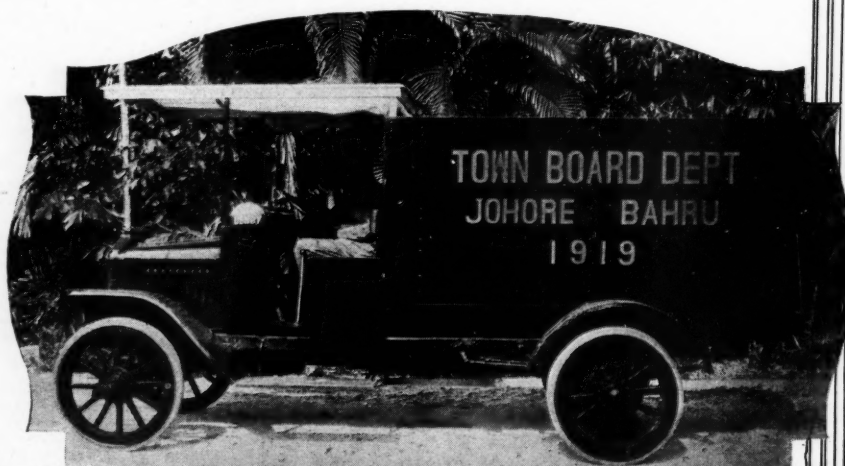
Dealers!

There are big opportunities in merchandising Denby trucks; maybe there's some open territory in your section. A letter to the factory will post you.

This economy, characteristic of all models of Denbys, is not the result of any one feature but comes from an efficient mechanism backed by a dependability that meets all tests,—resulting in a transportation cost, considering both purchase price and maintenance, that is surprisingly low.

Denby Motor Truck Company, Detroit

Johore Bahru is one of many towns and cities in the Straits Settlements that have adopted Denby equipment.





In France's Largest Munitions Plant these Edison-equipped industrial trucks did wonders in speeding up production

When Victory hung in the balance, depending on larger, ever-increasing, never-ceasing quantities of ammunition, supplies and food, the little industrial trucks shown above rendered wonderful service.

Day in and day out, through long hours, they answered the call for "more, more." Putting their trust always in Edison Batteries for their source of power, they never faltered.

This is one of the great industrial achievements of the war that has a lesson for every manufacturer. It shows great possibilities of increased production and, incidentally, very greatly reduced labor cost, by the use of properly powered industrial trucks.

Edison Storage Batteries are standard for use in Industrial Trucks and Tractors. Their use is assurance of low cost and dependable and satisfactory operation of your storage battery vehicle.

Bulletin 600-B describes the Edison Battery and shows scores of interesting installations of Edison-equipped trucks and tractors.

EDISON STORAGE BATTERY COMPANY

Factory and Main Office: ORANGE, N. J.

Distributors in

New York
New Orleans

Boston
Pittsburgh

Chicago
Kansas City

Detroit
New Haven

San Francisco
Philadelphia

Seattle
Cleveland

Los Angeles
Syracuse

MORE MONEY

For Transfer and Storage Men

- ¶ We have a very interesting proposition to make to transfer and storage men who can and will handle the retail sales of our trucks.
- ¶ We have been very fortunate in the past in securing transfer and storage warehousemen to sell our trucks on an agency basis. The class of sales made has been very satisfactory and the transfer men have earned substantial rewards for their work.
- ¶ There is *much* money in it for you.
- ¶ Write today for details.

J. C. WILSON COMPANY

Detroit, Mich.

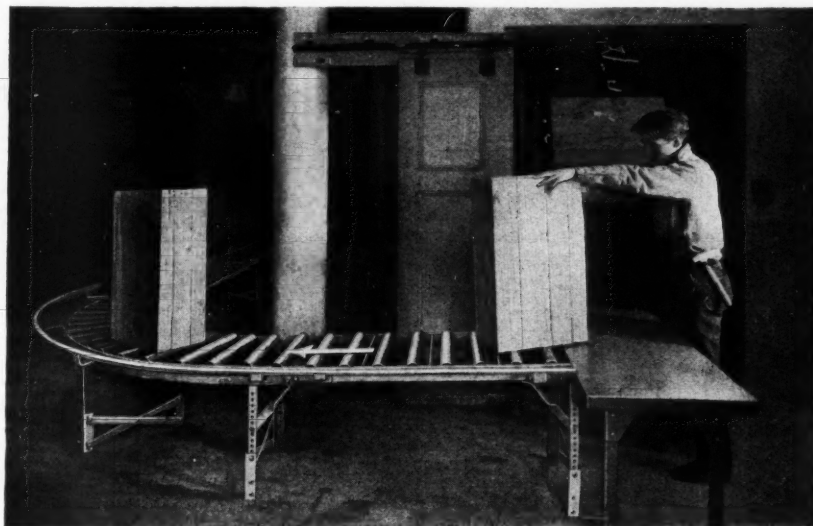
makers of

WILSON dependable motor trucks

1-, 2-, 3½- and 5-ton capacity.

36th YEAR

Lamson Conveyors



If You Want to Increase Your Merchandise Accounts

ONE of the best ways to secure new merchandise accounts is to improve your handling facilities. Install Lamson Conveyors to carry boxes, crates and other kinds of packages in all parts of your plant.

The picture shows a Lamson Automatic Elevator delivering cases of shoes from the receiving room to the floor where they are to be stored. From the elevator they pass in a steady stream on the Lamson Gravity Conveyor direct to where they are piled. There is a similar station on every floor of this warehouse. The operator in the receiving room

sets the elevator to discharge its load at any one of these stations—its action is entirely automatic.

We manufacture other Conveyors for carrying merchandise from the storage floors to the shipping room. Once an outgoing case or crate is placed upon the Conveyor, it is not touched by human hands until it is delivered at the shipping room.

Let us tell you the whole story of what Lamson Conveyors will do for you. Write or telephone our nearest representative, or, if you prefer, send for our book on conveying.

THE LAMSON COMPANY

100 BOYLSTON ST., BOSTON, MASS.

Selling Agents

Boston, 100 Boylston St.
New York, 15 West 44th St.
Philadelphia, 1200 Walnut St.
Pittsburgh, 319 Third Ave.
Baltimore, Equitable Building.
Rochester, 194 Main St. East
Detroit, 97 Woodward Ave.
Toronto, 136 Simcoe St.

Cleveland, 2063 East 4th St.
Cincinnati, 119 East 5th St.
Indianapolis, Cor. Washington and Illinois
Chicago, 6 No. Michigan Ave.
Minneapolis, 221 Tribune Building
Omaha, 15th and Dodge Sts.
San Francisco, 617 Mission St.
Vancouver, B. C., 603 Hastings St.

Los Angeles, 221 San Fernando Bldg.
St. Louis, 709 Pine St.
Dallas, 905 1/2 Elm St.
Seattle, 215 Stewart St.
Washington, D. C., 426 Colorado Bldg.
Atlanta, 30 Moore Bldg.
Montreal, Jones & Glassco Co., Reg'd., St. Nicholas Bldg.

Service Stations

Denver, 1622 Arapahoe St. New Orleans, 124 St. Charles St. Albany, 22 So. Pearl St. Buffalo, 194 Main St. Kansas City, 200 New Ridge Bldg.



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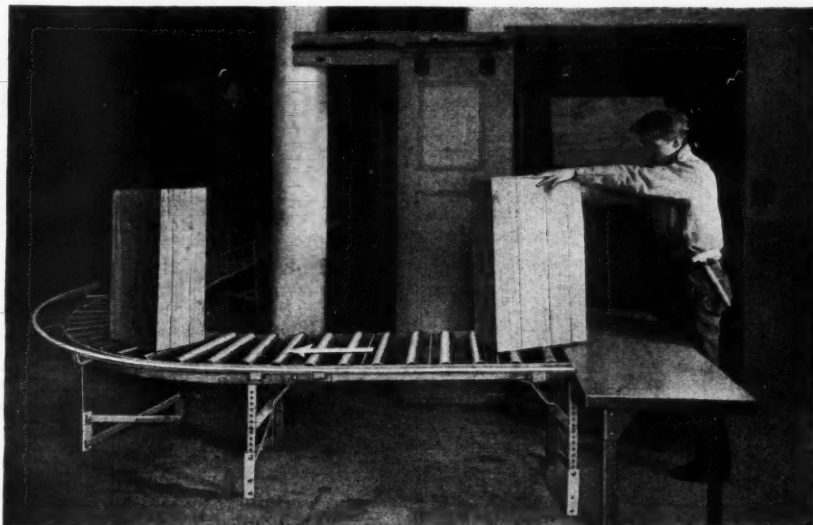
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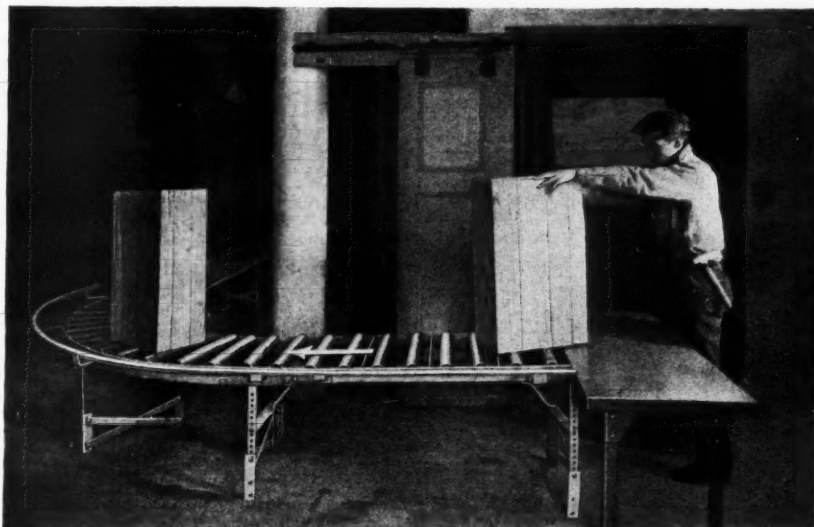
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**You Can't Beat Harvey
Springs for Trucking Service**

You can banish all thought of spring-breakage from your mind if your trucks are equipped with Harvey Springs.

These superior springs built for heavy loads are scientifically designed and constructed to live through terrific strains.

They set the world's standard in spring-making. You can depend on them—their use will mean one less cause of interruption of service to your customers.

Locate a Harvey dealer now so you'll be prepared if you need a replacement. There's a Harvey Spring specially designed for each make and model of truck. You don't need to take a substitute.

Write us for full information if you have difficulty in locating the nearest Harvey dealer.

**Easy
Riding**

Guaranteed

Harvey Spring & Forging Co.

1129 17th Street

Racine, Wis.

Consider 3 Points before buying a truck

1 Low First Cost

This is the buyer's advantage, made possible by greater production. Republic is the largest manufacturer of trucks exclusively, building a complete line. There are almost 60,000 Republics now in use.

2 Low Operating Cost

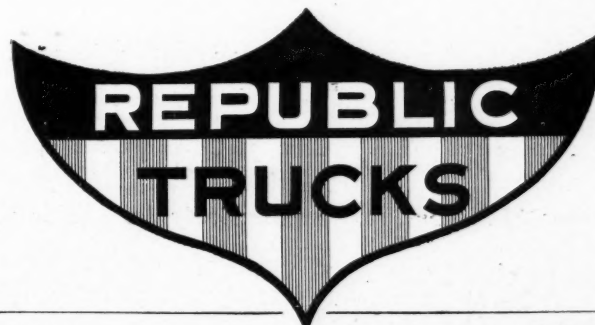
The Torbensen Internal Gear Drive, used in all Republic Trucks, delivers to the driving wheels over 92% of the power generated by the motor. No other drive delivers as much. Hence, Republic users obtain greater mileage and greater economy in fuel and lubricant used.

3 Low Repair Cost

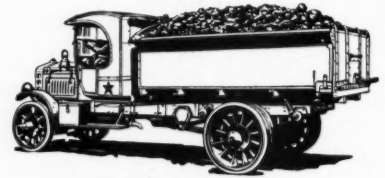
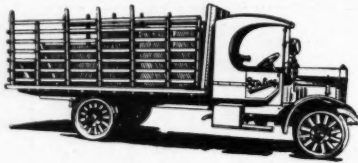
Maintenance of over 1400 fully equipped Republic service stations, in nation-wide distribution, operated by Republic-trained mechanics, assures Republic users uniform and dependable service facilities with a minimum loss in the truck's operation.

*Consideration of these three points makes
Republic the logical truck to buy*

REPUBLIC MOTOR TRUCK CO., Inc., Alma, Michigan



THE "YELLOW CHASSIS" TRUCKS



NO matter what your business may be, if you have real hauling to do, there's a Sterling of the right capacity, speed and body equipment to handle it efficiently and economically.

**"Efficiency
on
Wheels"**

Sterling MOTOR TRUCKS

are built in 1½, 2½, 3½ and 5-ton capacities, Worm-Driven, and in 5 and 7½-ton capacities, Chain-Driven.

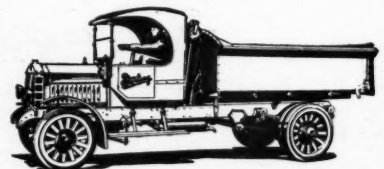
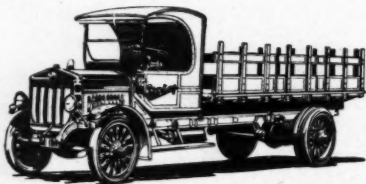
The 1½ and 2½-ton Sterlings, when equipped with Pneumatic Tires, will carry loads anywhere that a passenger car may be driven.

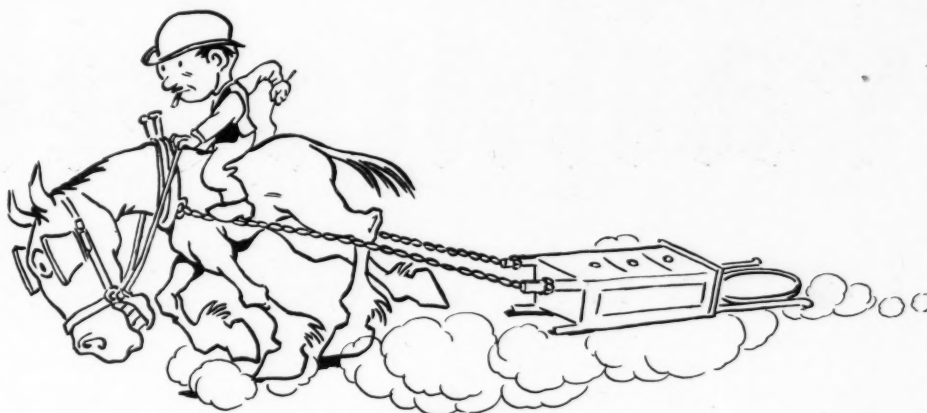
The 5-ton Chain-Driven Sterling—"The Road-BUILDER"—and the 7½-ton Chain-Driven Super-Sterling—"The Inter-City Freightier"—meet in an exceptional way the requirements of those who demand dependable service under extremely trying conditions.

Better Trucks than the Sterlings are not built anywhere.

Sterling Motor Truck Company, Milwaukee

Builders of Motor Trucks exclusively for twelve years





One Way To Do It!

If you want to have the furniture you move scratched and scarred—if you want to smash it to smithereens—the method described above will do the work.

But—

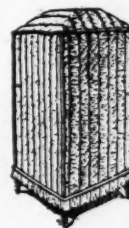
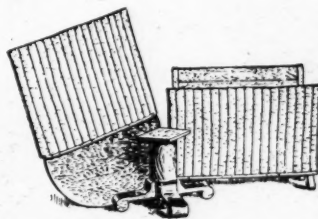
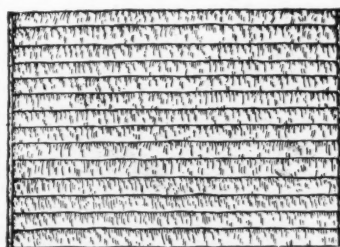
If you want to see it arrive at its destination without a break—without a blemish—use those soft, resilient, *durable* Loupilco Furniture Pads.

Busted furniture? Not a chance! Loupilcos completely cover and thoroughly protect every piece of furniture from a foot stool to a piano.

They make satisfied customers, build trade and pile up profits. And they're the best kind of advertising you can buy. And economy? They pay for themselves in no time by cutting out repair bills.

Send for prices and particulars—*today*.

LOUISVILLE BEDDING CO., INCORPORATED, 369 East Market Street,
LOUISVILLE, KY. OWNERS OF LOUISVILLE PILLOW CO.



Trailmobile

Trade-Mark Reg. U. S. Patent Office

Twice the Load Space

The Motorless
Motor Truck

Thousands
in Use

DIVISION 1—Light four-wheeled Trailmobiles for use with passenger cars or light trucks: 1,250 lbs., $\frac{3}{4}$ ton and 1 ton.

DIVISION 2—Heavy-duty four-wheeled Trailmobiles for use with trucks; $1\frac{1}{2}$ tons, non-reversible; 2 tons; $3\frac{1}{2}$ tons, and 5 tons, Reversible.

DIVISION 3—Trailmobile Semi-Trailers: 2 tons, 3 tons, 5 tons, and 7 tons.

YOU CAN double the load space of your truck and haul double the amount of furniture a trip when the truck pulls a Trailmobile.

You can double the earnings of your truck by pulling two loads at once.

A light truck and Trailmobile equip you to haul large loads. When the loads are smaller the truck can work alone—fully loaded with no capacity wasted. On long trips between towns Trailmobiles especially are large earners.

The Trailmobile adds only about $12\frac{1}{2}$ per cent to the cost of operating a truck; it reduces the speed only very slightly. One driver using a Trailmobile can haul twice as much.

Write for booklet, "Economy in Hauling"

The Trailmobile Co. 515-535 E. Fifth St. Cincinnati, Ohio



*Good roads are preserved by
reducing the load carried on each wheel.*

Extra Large Loading Capacity

FWD TRUCKS

The boys from the Front will tell you

IN F-W-D trucks the power and load
are equally distributed on all four wheels.

One of the results of this—a great gain to transfer and storage trucking—is larger loading capacity than is possible in other types of trucks which carry 75 to 95 per cent of the load on the rear axle.

Other advantages of the F-W-D are its small turning radius and easy steering, making its operation exceptionally easy at loading points and in crowded traffic.

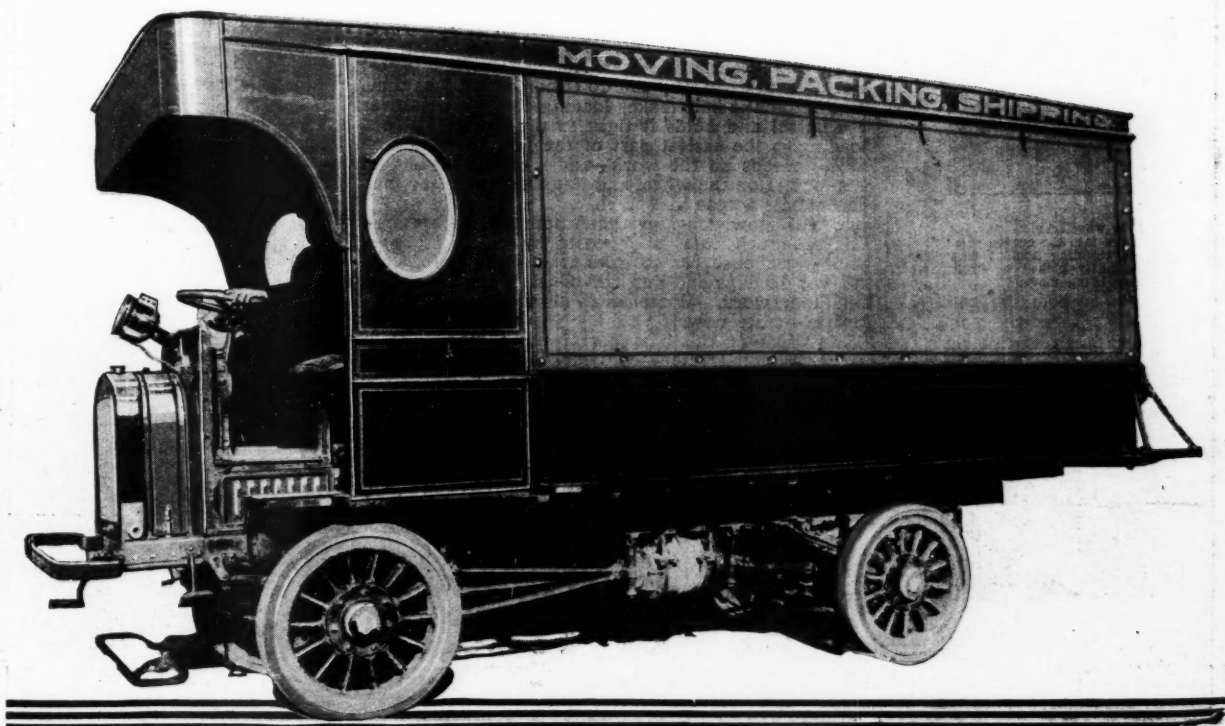
The F-W-D saves 10 to 15 per cent on fuel and a third on tires. 56-inch standard road tread front and rear—perfect track—same size tires all around.

Can be supplied with three different wheel bases to accommodate bodies from 10 to 16 feet in length. Made by a great, permanent organization with an international reputation.

The Four Wheel Drive Auto Company

Dept. 108, Clintonville, Wisconsin

Canadian Factory: Kitchener, Ont.



MATHEWS

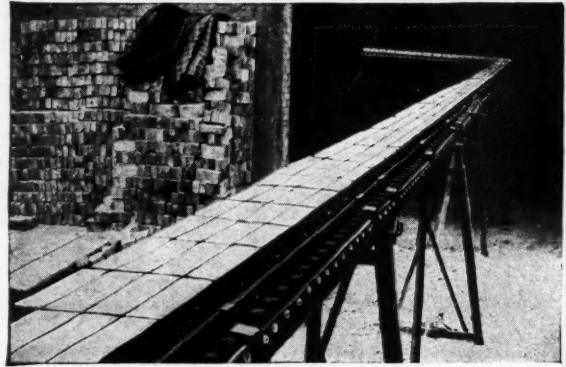
SPEED ECONOMY

GRAVITY ROLLER CONVEYER

Gravity will Boost Profits

The Mathews Gravity Carrier is simply a properly applied system of making *free* gravity work for you. It consists of standard, portable, sturdy, inexpensive sections of ball bearing steel rollers set up on a gentle incline. It moves almost anything almost anywhere.

Gravity never gets tired; never says "let's call it a day;" never complains,



never goes on strikes; never stops to argue; never forgets; has no likes and dislikes; doesn't stop work to look at passing trains or to chin over yesterday's sporting scores.

It works for you willingly, constantly and without pay.

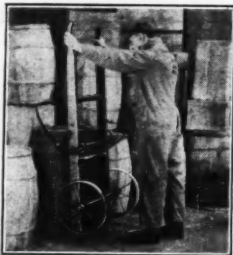
Write us today for complete descriptive literature.

MATHEWS GRAVITY CARRIER COMPANY 134 Tenth Street, Ellwood City, Pa.

Branch Factories: Port Hope, Ontario—London, England



Truck is wheeled close so that barrel fits into the curved arm. Barrels standing against wall are instantly picked up without first being moved.



Handles are raised. Bale falls over barrel. Works automatically.

Stop Rolling Barrels

ROLLING barrels by hand is costing you ~~you twice~~ as much as it should. Two men are doing the work that one man with an Automatic High Wheel Barrel Truck can do—and do easier and in less time. The automatic bale makes loading easy—it falls over the barrel and holds it tight to the truck. In fact, loading is the easiest part of the job. The 16 inch wheel speeds up the work—and it is so placed that the load is on the wheel and not the man. One man can handle a 1000 lb. barrel.

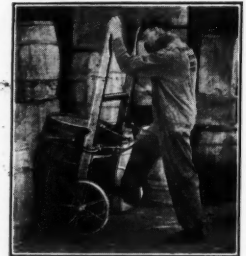
We will show you how the Automatic High Wheel Barrel Truck cuts labor costs by putting one in your warehouse for 10 days trial. Put it to work for you 10 days and put half of the men on the job, on other work. Write us to send you one on approval—write now.

This truck is the best barrel truck made. It is strongly constructed—cold rolled axle, malleable iron and hard-wood handle. Its width over all is 30 inches. The length of the handles, 67 inches. Price, F. O. B. Bellevue, O., \$20.00. Discount for five or more trucks.

10 days free trial.

THE BELLEVUE MANUFACTURING CO.
BELLEVUE, OHIO

The Automatic Wheel Barrel Truck



Handles are drawn back and barrel is on truck. No second man required for heavy barrels.



Ready to truck and barrel has not been touched. Nicely balanced.

If It's
Made
of
Canvas
We
Make
It



Write
for
Stock
List
and
Catalog

Waterproof Storm Covers for Auto Trucks, Wagons and Horses, Tarpaulins, Dust Covers, Piano Covers, Victrola Covers, Tents, Horse Feed Bags, Radiator and Hood Covers, Furniture Loading Pads, Van Liner Pads, Canvas Pads and Bags of every description.

Large Stock — Prompt Deliveries

RICHARDS MFG. CORPORATION, Philadelphia, Pa.

MAIN OFFICE AND FACTORY: 948-952 NORTH 8th STREET



This Bradley Stencil Machine and One Boy Will Do the Work of Three Markers



And do it with black, clean cut accuracy that is straight insurance that your shipments *will go through*. No sidetracking or delay due to careless illegible marking. Follow the arrow and you will see the actual work—just as you can have it done in your place.

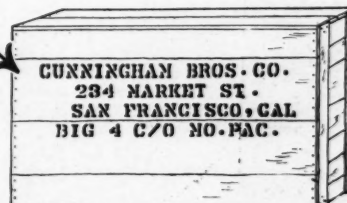
This is a startling economizer of Time, Money and Labor. You prove it on the following proposition:

Write us today and we will send you a "Bradley" ready for use—300 stencil cards, Patent Ball Marking Brush, etc. PREPAID. USE IT FOR A MONTH AT OUR EXPENSE. Then, if it doesn't cut card board stencils *faster* than any other machine or any expert can do them—SEND IT BACK. (No quibbling or correspondence on our part)—and we will pay Return Freight.

This is the biggest promise and the fairest proposition you have ever had. Order The Bradley Stencil Machine—NOW. You are losing Big money every day you wait.

BRADLEY STENCIL MACHINE CO.
3744 Forest Park Boulevard St. Louis, Mo.

Note the Clearness of Bradley Stencils





1. Loading



2. Ready to Elevate

**Four
Steps
Toward**

**Lower Cost
Greater Efficiency
Increased Storage
Capacity**

by the

REVOLVATOR

Reg. U. S. Pat. Off.

Method

These four pictures illustrate four steps in the tiering of boxes with the Revolvator as practiced in one large warehouse. Storage and warehouse firms everywhere tell us that the Revolvator has reduced their tiering and handling cost 25 to 100% and increased their warehouse capacity 50 to 200%.

It will do as much for you. Don't take our word for it; ask any Revolvator user.

Write for Revolvator Bulletin T.

Revolvator Co.

**Sales Agents for
N. Y. Revol. Port. Elev. Co.**

389 Garfield Ave.

**Jersey
City
N. J.**



3. Revolving to Unload



4. Unloading

TRANSVEYORS

Moved on wooden platforms by elevating the Transveyor under the loaded skid; left in the warehouse on Transveyor platforms, compactly stored by pressing the Transveyor foot pedal—is Transveyor Transfer and Storage.

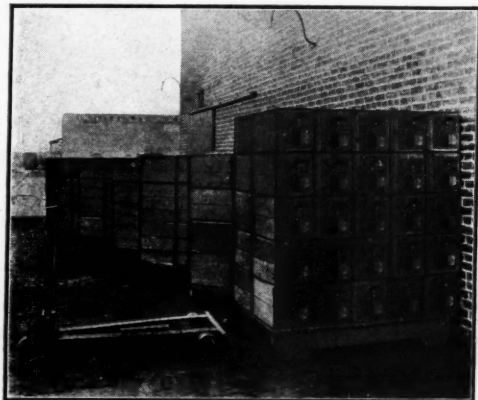
No handling—no congestion—extraordinarily large loads easily handled by one man.

Views of warehouse applications are yours for the asking.

COWAN TRUCK COMPANY

12 Water Street

HOLYOKE, MASS.



BREEN'S PIANO DERRICK

What Everybody Needs

PIANO MOVERS find that the hoisting and lowering of pianos is made easy, safe and economical by the use of this practical, adjustable Window Derrick. Handy to carry, easily put in place by one man, always ready and quickly utilized.

It is a practical, patented invention which has been in use for twelve years and has demonstrated its value beyond question. It clamps to window. There is also a swing under bar which is placed under outer end of piano and carries it in or out.

Every mover of safes, pianos or heavy merchandise needs Breen's Piano Derrick because it saves the strength of the men, means a tremendous saving of time, and obviates jams and scratches. Several firms have taken out third story window, set the derrick in place, hoisted piano, and replaced window in 25 minutes.

The Derrick Complete \$35.00

Also manufacturers of Belts and Bars to hoist Pianos and Ropes, Blocks and Piano Covers. Write to-day. Catalogue for the asking.

WM. H. BREEN

219-231 Rutherford Ave., Charlestown, Mass.



CRANE PULLER

FOR HEAVY TRUCK WHEELS

A
REAL
TIME
SAVER
WHERE
TIME
IS
MONEY



GUARAN-
TEED
TO LAST
A
LIFE-
TIME

ONE Man can remove the heaviest Gas or Electric Truck Wheel in 15 Minutes with this PULLER.

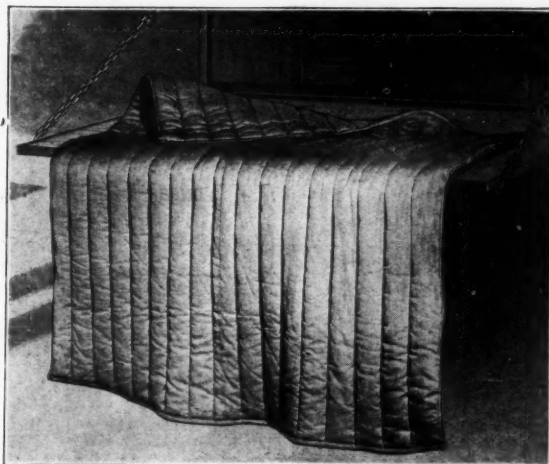
Write for Catalog Z

ORDER FROM YOUR JOBBER

CRANE PULLER COMPANY

54 Lake St.

Arlington, Mass.



Khaki Brown

Fully Insured by Maish Quality Wagon Pads

The wise dealer takes no chances of dissatisfying a customer because of goods marred during delivery. There need be no breakage, no scratching, no rubbing. Maximum insurance is afforded by Maish Quality Wagon Pads—the pads that come through the test of usage with a perfect score.

Service is the only basis on which a wagon pad can be judged. Maish Quality Wagon Pads are made of long-lasting khaki-brown material. Filling is an extra thick one-piece layer of cotton (no shoddy). Quilting in close, regular rows of stitching with heavy carpet thread. Edges bound by our special process, which protects every seam and prevents ripping.

Order Maish Quality Wagon Pads freely, as shipments are made with the understanding that if not entirely satisfactory they may be returned at our expense. Maish Quality Wagon Pads are the product of the manufacturers who also made Maish Comforts world famous.

We make immediate deliveries in all standard sizes. Look over your wagons and trucks, then send us your specifications. We quote F.O.B. Cincinnati:

No. 10 Cut Size, 36x72	-	-	\$2.30 each
No. 20 Cut Size, 54x72	-	-	3.10 each
No. 30 Cut Size, 72x80	-	-	4.15 each

Prices subject to change without notice.

TITAN

3½ AND 5-6 TON INTERNAL-GEAR DRIVE TRUCKS

WRITE FOR BULLETIN ON
TITAN "HI-WAY TRANSPORT" TRUCKS



A 3½-ton Truck with a 5-ton Motor

Built specially for Long-Distance Hauling.

High Road Speed—17 miles per hour at 1000 R.P.M. of the motor.

Surplus Power—

To take stiff 25% grades and pull through bad places that stall other trucks.

Oversized Units—

5-ton Motor; 5-ton Clutch; 5-ton Transmission; and big 8" pressed channel frame.

TITAN TRUCK CO.

MILWAUKEE WISCONSIN

The Chas. A. Maish Co.

Makers of the world famous Maish Comforts
1129 Bank Street Cincinnati, Ohio



As if Especially Built for the Transfer & Storage Business

KISSEL Trucks stand up under continuous service and capacity loads—they are powered for any grade—geared for consistent speed and designed for adaptation to your every haulage requirement.

Dependability—power—economy—long life—stamina—to get there and back—the very characteristics you would build into a truck were you the designer.

The unusual strength of the Kissel Truck chassis, the advanced engineering principles and structural features—the Kissel-built power-plant, brakes of locomotive strength—these are the real sources of Kissel Truck superiority.

Kissel Truck owners in the Transfer and Storage Business will gladly verify Kissel Truck superiority. See your nearest Kissel dealer. Five different sizes— $\frac{3}{4}$ -ton to 5-ton models.

KISSEL MOTOR CAR CO.
Hartford, Wis., U. S. A.

KISSEL TRUCKS

You are Paying TOO MUCH to tier your packages—

while you are using "strong arm" methods. They are slow. And time now is MONEY—more than it ever was. And how about using two or three men when one man can do it quicker, better, cheaper? And how about not getting all the money out of your floor space?

BROWN - PORTABLE
HAND-LIFT
"LOWERS THE COST OF LIFTING"



The NEW Portable Tying Machine

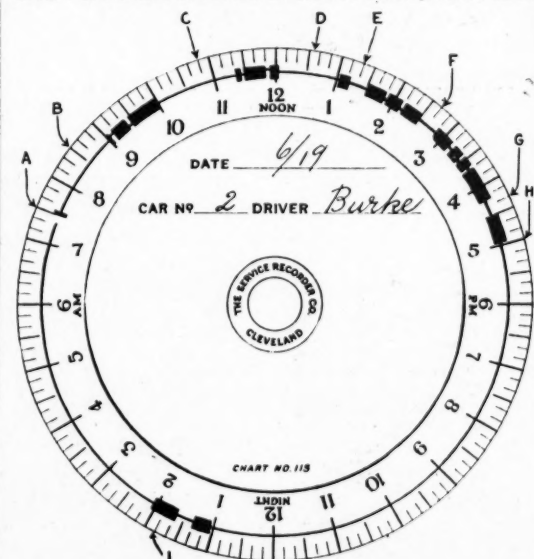
answers all these save-money and save-labor questions. And its answer is in dollars **saved**. The Brown "Handi Lift" saves from 1 to 4 men. And does the work quicker, cheaper than your present low tying (by hand methods). Your floor space then makes more money for you.

The Brown "Handi Lift" does not need space to swing its loads around. Ties **straight up**—quickest, **cheapest way**. Hinged, if needed, to pass through low doors. Portable. Any size. **Guaranteed** by oldest portable conveying machinery company in the business. Ask for "Bulletin 38," sending details as to the largest sizes and weights of package, heights piled up to and lowest doorway. No obligation. Machine pays for itself—stops waste.

Brown Portable
Conveying Machinery Co.
10 S. La Salle St., Chicago, Ill.

What's Your Truck Doing All Day?

Here are the facts of one day's operation—facts that the truck owner didn't have to "go out after," but facts which were brought to his desk on the Servis Recorder Chart pictured below.

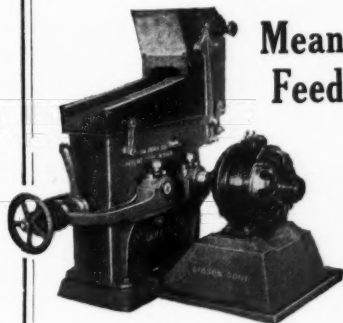


Daily Servis Recorder Chart (much reduced). Heavy mark shows when truck is in motion; narrow line shows truck standing still.
A—truck started at 7:30.
B—hour and 25 minutes to load.
C—hour and 20 minutes (at freight depot).
D—a lunch hour.
E—fifteen minutes (loading).
F—held up 20 minutes (drawbridge).
G—stopped 15 minutes (somewhere on return trip. Ask about).
H—put up at garage at 5:00.
I—taken out during night.

Write for Booklet

THE SERVICE RECORDER COMPANY, CLEVELAND

Crushed Oats!



Patented

**Means Conservation,
Feed Less in Weight**

**Your Stock
Gets *More*
Nutriment
from *Less*
Oats**

Machine now built under United States Food License L000086 U. S. A.

- 1st. Your stock is built up in bone and muscle. No colic, or stomach trouble.
- 2nd. You feed 15% to 20% less in weight, which saves you money and helps your "Uncle Sam" win the war.

Thousands of users will recommend
Crushed Oats

Write us for further information.

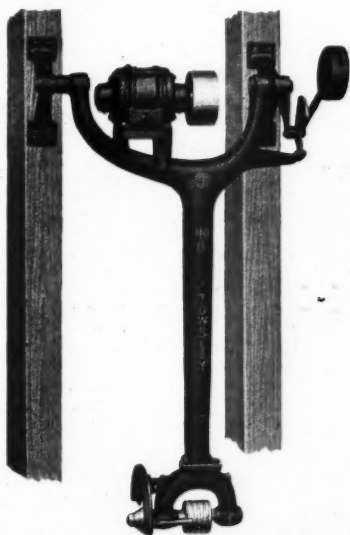
GIBSON OAT CRUSHER CO.

McCormick Bldg.

Chicago, Ill.

Eastern Office: 34 East 28th Street, New York City.

Quality First—Service Always



**PROMPT
SHIPMENT**

No. 6 Motor Driven Swing Cut-off Saw

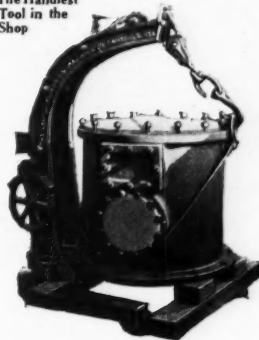
A rapid and accurate cutter. Counter-weight gives quick return to saw, self-centering device for saw, self-oiling boxes. Machine carries blades up to 20-in. without vibration. Write today for Bulletin of motor-driven and belted Swing Saws.

JOHN T. TOWSLEY MFG. CO.

1010 Evans St., Cincinnati, Ohio

On the Payroll of the P. & R.

The Handiest
Tool in the
Shop



Six Canton
Cranes are
used in the
Phila. &
Reading
freight sta-
tions at Phil-
adelphia
—lifting and
shifting the
consign-

ments. Each crane is doing the
work of six men—saving that
much in wages.

In fact, wherever heavy loads are
shifted and quickly carried about
you will find Canton Cranes making
one man's time worth six. These
speedy and easily handled hoists
get in the most remote parts of a
crowded warehouse.

The Canton Cranes are strongly
constructed of the best steel and
cast iron. They are built in sizes
that will meet your needs.

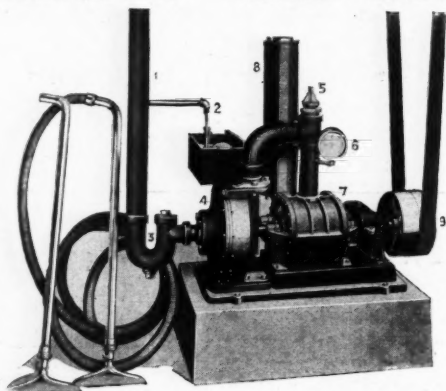
Write for our booklet containing
money-saving, time-saving ideas
for those who transfer goods. It
has a real message for warehouse
men—write now.

**The Canton
Foundry & Machine Co.**

Canton

Ohio, U. S. A.

IT'S NO MIRACLE JUST A "Connersville" Vacuum Cleaner



Install a Rug Cleaning Department for Profit

You have often heard how rain spoils little potatoes by making big ones out of them. Well, that's the way with "Connersville" Centrifugal Separating Machines in carpet cleaning establishments. They spoil little businesses by making big ones out of them.

WRITE ANY SUPPLY OR EQUIPMENT HOUSE

COMPLETE EQUIPMENT

Sold by
Electrical & Specialty Supply Co.
9 South Clinton St. CHICAGO, ILL.

Made by
UNITED VACUUM APPLIANCE DIVISION
OF LANDERS, FRARY & CLARK, CONNERSVILLE, IND.

Dr. Pyle's Famous Veterinary Remedies

Contain NO OPIATES and leave no bad after effects. A specific remedy for each disease, no "CURE ALLS." Remedies we manufacture:

Azoturia
Remedy
\$2.00

Colic
Remedy
\$1.50

Healing
Powder
25c.

Distemper
Remedy
\$1.20

Gall Cure
Salve
50c.

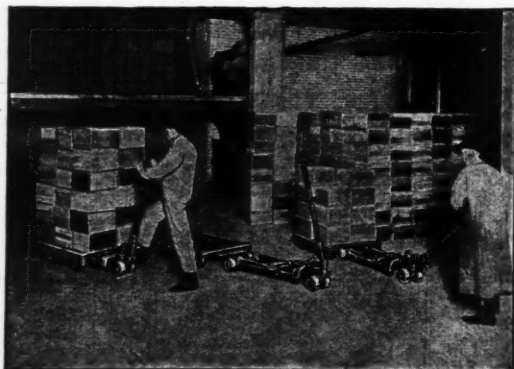
Special
Price
Per Dozen



Trade-Mark

All backed by our great \$150,000.00 Guarantee.
For Sale at Druggists, Horse Goods Dealers or Direct.

**The Dr. Pyle Veterinary
Remedy Co., Inc.**
New Philadelphia, Ohio, U. S. A.



Save Money, Time and Labor by Using

"THE HOLYOKE" Transfer Truck

One Man and this truck performs the work of Four Men.

Various models to suit every variety of work.

All strongly built and sold under a liberal guarantee.

Write for Circular B-1

Holyoke Truck Company

Main Office and Factory
105 Race Street, HOLYOKE, MASS.

Export Department:
77 Broad Street, New York City



Better Protection of goods in shipment and storage

The problem of protecting rugs, carpets, draperies, etc., against moths, mice, germs, while in storage or in transit, is solved by the use of

WHITE TAR PAPER

Made in two grades—Pine Tar and Cedar. Pine Tar for ordinary materials; Cedar for the finest fabrics. Put up in rolls of 12 sheets, each sheet 40 x 48, in full size and in continuous rolls 50 yds. to 1,000 yds. Also heavy tar bag paper cut 5 x 7 and packed 100 sheets to the carton.

We sell Naphthalene Moth Balls, Flakes Crystals, Powder and Blocks; Lavender Compound and Cedar Compound in one-pound and two-pound packages, 100-pound boxes and barrels.

Write today for price list and full information.

The WHITE TAR COMPANY
CLIFF & JOHN STREETS, NEW YORK, N. Y.





With Help Scarce
AND
Wages High
NOW
Is the Time
when the need
for our
LABOR-**SAVING**
SPIRAL CHUTES
VERTICAL LIFTS
AND
MERCHANDISE
CONVEYORS
is imperative

Owned by
The Haslett
Warehouse
Co., of San
Francisco,
the develop-
ment of
handling

problems in our own fourteen general merchandise store-
houses has enabled us to give practical advice to ware-
house and terminal concerns. We are at your service.

Through long experience we have learned how to com-
bine every form of merchandise conveyor so as to obtain
the most practical results.

When no standard form of conveyor is adequate, we
design special machines.

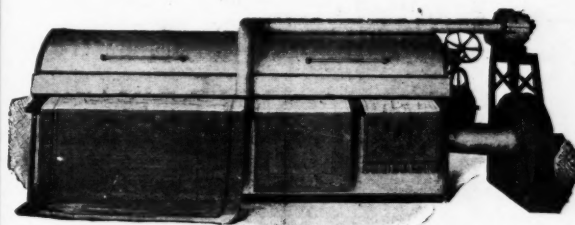
When you want information on conveyors, write us.
We can help you.

The Haslett Spiral Chute Co.

Factory: Madison and 20th Sts., Philadelphia, Pa.
Southern Office: 523 Calvert Bldg., Baltimore, Md.
Pacific Coast: 228 Pine St., San Francisco, Cal.

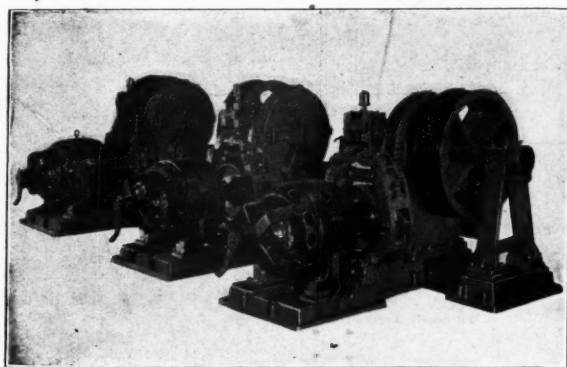
Because there is Big Money in It

storage and warehouse
companies are installing
this big rug cleaning
machine



The most perfect Rug Cleaner made

The Cleveland Laundry Machinery Mfg. Co.
CLEVELAND, O.



UNCLE SAM

Ordered 5 elevators like this for storage
Houses

AT PANAMA

Are they Good Enough for You?

Colley Elevator Co.
CHICAGO

EXCELSIOR PACKING PADS ARE LIKE INSURANCE

YOU pay only a small premi-
um charge for the best pro-
tection obtainable. Don't think
of them as an expense, consider
the loss and inconvenience of
claims for damage and the satis-
faction of knowing that anything
you ship will reach its destination
exactly as it left your hands.
You will incur no obligation by
getting our samples and prices.

H. W. SELLE & CO.

Manufacturers

1000-1016 N. Halsted St., CHICAGO, ILL.



Save
Time
and
Labor
Sawing
Boxing
and
Crating
Lumber

This neat, compact saw can be hung up against any convenient wall or column, thus taking up no valuable floor space.

The Reliance MOTOR DRIVEN Swing Saw

will save the time and energy of hand cutting—do the work much better and faster—and, being self contained, can be placed anywhere, regardless of power supply.

Easily installed by anybody. Direct or alternating motor. Built in three sizes, to accommodate any class of work.

Tell us your requirements and we will submit proposals.

Reno-Kaetker Electric Co.
4600 SPRING GROVE AVE.
CINCINNATI, OHIO

Giant Grip Traction Equipment for Motor Trucks



MAKES transfer and express trucks 100% efficient. Insures against time lost through tie-ups due to mud, sand, snow or other bad going.

Carried in tool box. Applied when needed—with bare hands in two minutes. No tools; no jacking. Write today. Please give name and tonnage of trucks. Address

Challoner Company
Established 1883
Dept. 16 Oshkosh, Wis.

HORSE NAILS THAT HOLD



insure the best service for the horse owner.

Someone's time must be wasted, someone's money needlessly spent if the nails fail.

Of course, you want maximum service. Then have Capewell nails used. It pays well.

Look for the Capewell Trade Mark—a pattern on the front face of the head, formed by lines crossing each other diagonally.

Not the cheapest nail, regardless of quality, but the world's best at a fair price.



The Capewell Horse Nail Co.
HARTFORD, CONN., U. S. A.

Renew the Power and Life of
Your Engine

by having the

Cylinders Reground

and equipped with new

Pistons—Piston Pins—Piston Rings

by the

Butler Manufacturing Co.

1124 E. Georgia St., Indianapolis, Ind.

Safepack

more than waterproof

wrap-stuff, case and bale-lining

Real Protection for Goods in Storage or Transit; Proof against moisture, dust, dirt, rust, mildew and moths. Rats won't eat Safepack. Whatever your storage or shipping problem submit it to Safepack for intelligent solving.

Samples on request. Address Dept. T.

Safepack Mills
Boston U S A

SAVE MONEY ON RECOOPERING

Two straps $\frac{1}{2}$ " x .015 can be applied to standard canned goods boxes at an average cost of less than four cents per box, including material and labor. Write for full information to

SIGNODE

SYSTEM INC.

108 WEST LAKE STREET

CHICAGO

REGROUND BEARINGS

OUR REGRINDING PROPOSITION
WILL CUT DOWN YOUR BALL
BEARING BILLS. TRY US AND
BE CONVINCED. SATISFACTION

GUARANTEED

AHLBERG BEARING COMPANY

317-327 EAST 28TH ST CHICAGO, ILLINOIS.

ATLANTA
BOSTON
CLEVELAND
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KANSAS CITY
LOS ANGELES
MINNEAPOLIS



NEW YORK
PHILADELPHIA
PITTSBURGH
PORTLAND, ORE
PROVIDENCE
SAN FRANCISCO
ST. LOUIS - OMAHA





If you don't find what you want here, your advertisement here will find it for you.

This Exchange section serves a real purpose in the industry by affording a central market place for the disposing of equipment no longer needed, and the securing of special apparatus at bargain prices. If you have any equipment for sale or wish to sell your business, this section is the logical place to advertise. All advertisements in this section will be accepted at a flat rate of three cents per word for each insertion.

EXECUTIVE, discharged officer (30), experienced in handling large warehousing and transportation problems, foreign and domestic shipping; thoroughly understands business from practical experience and long association with reputable organizations; good presence, capacity and consecutive hard work, desires to associate with active, progressive firm; full details in interview. King, Box 101, Transfer & Storage.

FOR SALE.—Transfer, feed and coal business in a good town, doing a good business. For further information write Hefferin's Transfer, Forsyth, Mont.

FOR SALE.—Money-making transfer and storage business located at Nogales, Ariz., on the border between the United States and Mexico. Full information upon inquiry. Wylie Transfer Co., P. O. Box 455, Nogales, Ariz.

WANTED TO BUY.—One set second hand self lifting piano trucks. Dragoun Transfer & Storage Co., Ames, Iowa.

FOR SALE.—We have for sale cheap several sidewheeler and lorry trucks all in good working condition. They are of three- four- and six-ton capacity, very suitable for any person located where team trucks are still in demand. Turner Cartage Company, 334 Lafayette Blvd., Detroit, Mich.

WE WANT TO SPEND \$25,000 CASH for unclaimed merchandise left in storage. We will buy for spot cash. Novelties of all kinds, household specialties, toys, knick-knacks, books, post cards, jewelry, pictures, patented articles, "fool" inventions. Anything of which there is a large quantity. Send sample and say how many you have. Our spot cash offer by return. Address Fantus Brothers, 525 So. Dearborn St., Chicago, Ill.

FURNITURE PADS

*Made of Tough Soft Drill
in Government Khaki Color*

STOCK SIZES:
36" x 72" 50" x 72" 75" x 72"

*Burlap, Waterproof Tarpaulins,
Bags, Etc.*

FULTON BAG & COTTON MILLS, Inc.
330 WYTHE AVE., BROOKLYN, N. Y.
Phone: Greenpoint 4200

20% Feed Bill Saver

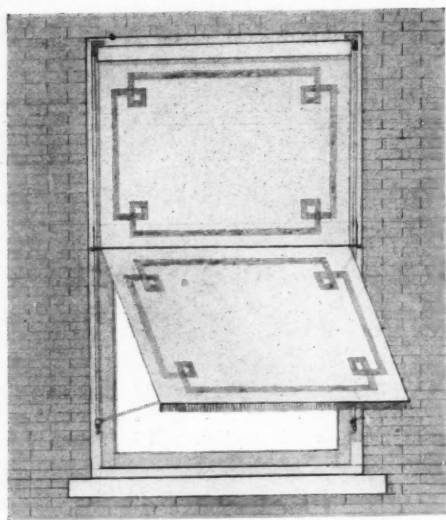
This means if at present you are feeding 4 qts. to each horse per meal, by feeding crushed oats you save 2.4 qts. The yearly saving is 27 bushels, and figuring oats at 55 cents per bushel means \$15.00 saved on each horse. Just multiply this on each horse you have.

Crushed oats produce bone and muscle and keep horses in better working trim with more staying power, because Crushed Oats gain over whole oats from 15 to 25 per cent in nutriment.

The National is the most economical crusher to do this work—the power consumed costing about 10 cents per horse per month. It frees the food from foreign particles. This crusher will crack corn at the time it's crushing oats. Write for our money-saving booklet on crushed oats feeding—it's free. Write now.

National Oat and Corn Crusher

made by Excel Mfg. Co., Pottersville, N. J.



The Detroit Spring Shade

made by

Detroit Canvas Mfg. Co.

**Furniture and Van Pads
Phonograph Covers
Table Top Pads**

Water-Proof Storm Covers

for Horses and Wagons

Piano Covers (fleece lined)

**Auto Truck, Radiator and
Hood Covers**

PRACTICAL ideas, high quality of materials, skilled workmanship and modern manufacturing facilities are combined by the Detroit Canvas Manufacturing Company to make unexcelled products. We solicit the opportunity to demonstrate to buyers in the transfer and storage industry the money saving ideas and practical utility that are built into our canvas goods.

**Detroit Canvas Manufacturing
Company**

245-247 Larned St., East

DETROIT

MICH.

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Furniture Loading Pads

PIANO COVERS

TABLE TOP COVERS
VICTROLA COVERS
VAN LINER PADS

PIANO TRUCKS AND FULL
EQUIPMENT FOR HOISTING

WATERPROOF AUTO TRUCK COVERS
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The Magic Scratch Remover instantly touches up scratches, bumps, bruises, mars and other injury to varnished furniture and pianos. It works on any color of finish and the results it produces are permanent.

If each of your men has a Scratch Remover in his pocket he can repair the damage the instant it occurs and BEFORE discovery by the customer.

Users tell us that the Magic Scratch Remover will eliminate about nine-tenths of the "grief" from any transfer and storage business.

Price, only \$5.00 per dozen
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FULLY GUARANTEED—Fill out the coupon asking us to ship strictly on approval. If you are not more than pleased send the shipment back at our expense.

Note—If you maintain a finishing shop you need one of our complete **Finish Repair Outfits**. It will enable you to deliver your badly damaged goods TODAY, not next week. It saves refinishing in EVERY case.



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706-708 E. 19th Street Kansas City, Missouri

The M. L. Campbell Co.
Kansas City, Mo.

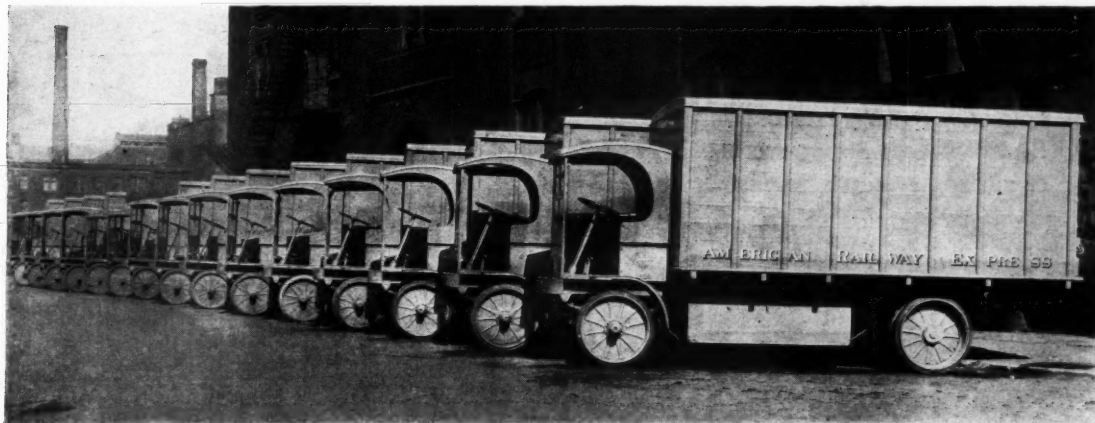
Gentlemen—Send us prepaid _____ doz. Magic Scratch Removers. We will remit \$_____ or return the shipment within thirty days.

Firm

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MAGIC SCRATCH REMOVER

Walker Electric Trucks



Economy and Dependability

ABOUT one-half of all motor trucks used by the American Railway Express Company are Electric Trucks.

Their first order may have been a tribute to the Walker Vehicle Company, but their continued repeat orders certainly are a tribute to the qualities of Walker Electric Trucks.

Walker Electrics are **economical** and **dependable**. They are easily adapted to the bodies best suited to light, heavy or bulky haulage. They involve no fire risks and may be operated and garaged in your warehouse without affecting insurance rates.

Ask any Walker user, branch or dealer.

Catalogue No. 19 sent on request.

Walker Vehicle Company

America's Largest Manufacturer of Electric Trucks and Tractors

New York

CHICAGO

Boston

Lowest trucking cost

Statements of Importance to Truck Buyers

THE following group of statements made by The White Company in recent advertising summarizes the achievements of the White Product—the White fleet growth, mileage records, honors won in commerce and war; reviews the factors of strength and permanence back of every owner's investment in White Trucks.

All bear on one simple fact: the real value of a motor truck; its *ability to do the most work for the least money under all conditions.*

"Year after year this list grows. It is something more than a list of well-known concerns owning ten or more White Trucks. It represents a *yearly progress in added trucks per owner*—the most extensive growth of individual fleets ever published by a truck maker.

"There are now 2774 White Fleets in actual service, totaling 33,139 trucks, exclusive of all single truck installations."

"The ultimate mileage of White Trucks is still unmeasured. Some have rounded out 300,000 miles. Many have run 200,000 miles. Hundreds, probably thousands, have passed the 100,000 mark—a very common White performance."

"The purchaser of a White Truck backs his investment in it with the strength of The White Company, with its years of successful experience, with its thousands of trained employees, with its tens of thousands of trucks in active service, with its millions of capital and a service organization, nation-wide, which has no parallel in the industry."

The complete statements, in pamphlet form, will be sent upon request

Roll Call

of White Truck Fleets In Actual Service

THE WHITE COMPANY
CLEVELAND

Owners' Records of 100,000 Made by

200,000 300,000 miles WHITE TRUCKS

THE WHITE COMPANY
CLEVELAND

WILL YOUR MOTOR TRUCK BE AN ORPHAN?

THE WHITE COMPANY
CLEVELAND

THE CROIX DE GUERRE

THE WHITE COMPANY
CLEVELAND

THE WHITE COMPANY
CLEVELAND

